# The EDISON ELECTRIC INSTITUTE BULLETIN

November 1953


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## Wanted: Fair Play
*W. H. Sammis*

## Accounting and Commercial Committee Work for 53-54

## On Uniform Inspection
*M. E. Skinner*

## Federal Depreciation Policy
*R. C. Staebner*

## Industry Accident Analysis
*S. H. Young*

## Weather Modification
*T. J. Henderson*


Published Monthly by Edison Electric Institute

# ELECTRICAL RESEARCH STATISTICS
# THE ELECTRIC LIGHT AND POWER INDUSTRY

*Current Statistical Data Covering 100 Per Cent of Industry*

*July, 1952-1953*

## SOURCE AND DISPOSAL OF ENERGY—MONTH OF JULY

| | 1953 | 1952 | % |
|---|---|---|---|
| **GENERATION* (Net)** | | | |
| By Fuel Burning Plants | 29,275,822,000 | 23,854,232,000 | +22.7 |
| By Water Power Plants | 8,754,517,000 | 8,735,216,000 | + 0.2 |
| **Total Generation** | **38,030,339,000** | **32,589,448,000** | **+16.7** |
| Add—Net Imports Over International Boundaries | 124,383,000 | 147,753,000 | −15.8 |
| Less—Company Use | 137,610,000 | 108,531,000 | +26.8 |
| Less—Energy Used by Producer | 929,678,000 | 1,024,378,000 | − 9.3 |
| **Net Energy for Distribution** | **37,087,434,000** | **31,604,292,000** | **+17.3** |
| Lost and Unaccounted for | 5,136,422,000 | 4,616,655,000 | +11.3 |
| **Sales to Ultimate Customers** | **31,951,012,000** | **26,987,637,000** | **+18.4** |

## CLASSIFICATION OF SALES

| | | | |
|---|---|---|---|
| **NUMBER OF CUSTOMERS—As of July 31** | | | |
| Residential or Domestic | 41,381,339 | 40,041,549 | + 3.3 |
| Rural (Distinct Rural Rates) | 1,616,085 | 1,689,490 | − 4.4 |
| Commercial or Industrial: | | | |
| Small Light and Power | 5,784,528 | 5,608,112 | + 3.1 |
| Large Light and Power | 270,054 | 255,081 | + 5.9 |
| Other Customers | 158,731 | 156,296 | + 1.6 |
| **Total Ultimate Customers** | **49,210,737** | **47,750,528** | **+ 3.1** |
| **KILOWATTHOUR SALES—During Month of July** | | | |
| Residential or Domestic | 7,478,650,000 | 6,568,436,000 | +13.9 |
| Rural (Distinct Rural Rates) | 1,005,970,000 | 994,391,000 | + 1.2 |
| Commercial or Industrial: | | | |
| Small Light and Power | 6,080,738,000 | 5,361,890,000 | +13.4 |
| Large Light and Power | 15,942,453,000 | 12,708,500,000 | +25.4 |
| Street and Highway Lighting | 259,089,000 | 242,290,000 | + 6.9 |
| Other Public Authorities | 751,699,000 | 671,574,000 | +11.9 |
| Railways and Railroads: | | | |
| Street and Interurban Railways | 215,191,000 | 231,958,000 | − 7.2 |
| Electrified Railroads | 164,941,000 | 163,959,000 | + 0.6 |
| Interdepartmental | 52,281,000 | 44,639,000 | +17.1 |
| **Total to Ultimate Customers** | **31,951,012,000** | **26,987,637,000** | **+18.4** |
| **Revenue from Ultimate Customers** | **$566,985,200** | **$493,511,800** | **+14.9** |

## RESIDENTIAL OR DOMESTIC SERVICE

| | | | |
|---|---|---|---|
| **AVERAGE CUSTOMER DATA—For 12 months ended July 31** | | | |
| Kilowatthours per Customer | 2,273 | 2,104 | + 8.0 |
| Average Annual Bill | $62.73 | $58.49 | + 7.2 |
| Revenue per Kilowatthour | 2.76¢ | 2.78¢ | − 0.7 |

* By courtesy of the Federal Power Commission.

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*The objectives of the Edison Electric Institute are:*

The advancement in the public service of the art of producing, transmitting, and distributing electricity and the promotion of scientific research in such field.

The ascertainment and making available to the members and the public of factual information, data, and statistics relating to the electric industry.

To aid its operating company members to generate and sell electric energy at the lowest possible price commensurate with safe and adequate service, giving due regard to the interests of consumer, investor, and employee.

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*The* EDISON ELECTRIC INSTITUTE BULLETIN

*November, 1953*

Vol. 21 No. 11

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# CONVENTIONS AND MEETINGS

1953

**NOVEMBER**

2- 3 EEI Electrical Equipment Committee, Jung Hotel, New Orleans, La.
2- 6 AIEE Fall General Meeting, Muehlebach Hotel, Kansas City, Mo.
4 PUAA Directors' Meeting, Minneapolis, Minn.
5- 6 PEA Systems Operations Committee, Castleton Hotel, New Castle, Pa.
5- 6 PUAA Region 7 Meeting, Minneapolis, Minn.
9-12 NEMA, Haddon Hall Hotel, Atlantic City, N. J.
11-13 Wisconsin Utilities Association, Electric and Gas Section, Hotel Schroeder, Milwaukee, Wis.
12-13 EEI Accounting Division Executive Committee, Edgewater Beach Hotel, Chicago, Ill.
12-13 Pacific Coast Electrical Association, Administrative Services Section, Hollywood Roosevelt Hotel, Hollywood, Calif.
17-19 NARUC Committee on Accounts and Statistics, Washington, D. C.
19 EEI Industrial Relations Committee Joint Meeting with New England Regional Group, Statler Hotel, Boston, Mass.
19-20 New Jersey Utilities Association Annual Meeting. Seaview Country Club, Atlantic City, N. J.
19-20 Pacific Coast Electrical Association Annual Hawaiian Conference, Honolulu, T. H.
19-21 Southeastern Electric Exchange, General Sales Conference, Biltmore Hotel, Atlanta, Ga.
23-24 PUAA Region 8 Meeting, Amarillo, Texas.
29- Dec. 4 ASME Annual Meeting, Statler Hotel, New York, N. Y.
30- Dec. 1 EEI-AGA General Accounting Committees, Jung Hotel, New Orleans, La.
30- Dec. 1 EEI Prime Movers Committee, Astor Hotel, New York, N. Y.

**DECEMBER**

1- 2 EEI Street Lighting Committee, Dayton, Ohio
2- 3 EEI Commercial Lighting Committee, Detroit, Mich.
3- 4 EEI Market Development and Electrical Applications Committee, Washington, D. C.
3- 4 EEI Home Service Committee, Indianapolis, Ind.
3- 4 EEI-AGA Customer Accounting Committee, Netherlands Plaza Hotel, Cincinnati, Ohio.
4 PIP Inter-Regional Committee, Norfolk, Va.
7- 8 EEI-AGA Accounting Conference Planning Committee, Drake Hotel, Chicago, Ill.
9 EEI Financing and Investor Relations Committee, EEI Headquarters, New York, N. Y.
10 EEI-AGA Customer Relations Committees, Washington, D. C.
10-11 EEI Industrial Power and Heating Section, Sheraton Hotel, St. Louis, Mo.
10-11 EEI-AGA Customer Collections Committee, Dayton Biltmore Hotel, Dayton, Ohio
10-11 EEI Commercial Cooking and Water Heating Committee, Tutwiler Hotel, Birmingham, Ala.
11 PIP Steering Committee, New York, N. Y.
14 EEI-AGA Accounting Employee Relations Subcommittee, Hotel Cleveland, Cleveland, Ohio.
17 EEI Industrial Relations Committee, EEI Headquarters, New York, N. Y.
17-18 EEI Commercial Electrical Space Heating and Air Conditioning Committee, Canton, Ohio.

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**JANUARY**

18-19 EEI Accident Prevention Committee, Hotel Statler, Boston, Mass.
18-22 AIEE Winter General Meeting, New York, N. Y.
18-22 CEA Eastern Division Meeting, Quebec, Que.
18-22 National Industrial Electric Heating Conference, Industrial Electrification Council, Netherlands Plaza Hotel, Cincinnati, Ohio.

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**JANUARY**

21-22 EEI Industrial Relations Committee Joint Meeting with Personnel Administration Section, Southeastern Exchange and Southwestern Personnel Group, Hotel Roosevelt, New Orleans, La.
27-29 EEI-AGA Taxation Accounting Committees, Arlington Hotel, Hot Springs, Ark.

**FEBRUARY**

4- 5 EEI-AGA Accounting Conference Planning "Dress Rehearsal," Netherlands Plaza Hotel, Cincinnati, Ohio.
4- 5 Missouri Valley Electric Association, Industrial and Commercial Sales Conference, President Hotel, Kansas City, Mo.
9-10 EEI Transmission and Distribution Committee, Hotel Cleveland, Cleveland, Ohio
11-12 PUAA Region 5 Meeting, Atlanta, Ga.
15-16 EEI Electrical Equipment Committee, Sheraton Cadillac Hotel, Detroit, Mich.
15-17 EEI Industrial Relations Committee Dinner Meeting in conjunction with AMA Mid-Winter Personnel Meeting, Chicago, Ill.
15-19 ASCE Atlanta Convention, Biltmore Hotel, Atlanta, Ga.
25-26 PUAA Region 1 Meeting, Montreal, Que.

**MARCH**

1- 5 CEA Western Division, Winnipeg, Man.
18 EEI Industrial Relations Committee, EEI Headquarters, New York, N. Y.
22-24 Southeastern Electric Exchange 21st Annual Meeting, Boca Raton Hotel, Boca Raton, Fla.
25-26 Oklahoma Utilities Association Annual Convention, Biltmore Hotel, Oklahoma City, Okla.

**APRIL**

7- 9 Missouri Valley Electric Association Engineering Conference, President Hotel, Kansas City, Mo.
7- 8 Pacific Coast Electrical Association, Administration Services Section, Hotel Claremont, Berkeley, Calif.
8- 9 IES Southern Regional Conference, Roosevelt Hotel, New Orleans, La.
11-14 IES Southwestern Regional Conference, Rice Hotel, Houston, Tex.
12-14 EEI-AGA Accounting Conference, Hotel Statler, Boston, Mass.
15 EEI Industrial Relations Committee, Netherlands Plaza Hotel, Cincinnati, Ohio
15-16 IES Inter-Mountain Regional Conference, Denver, Colo.
19-20 IES South Pacific Coast Regional Meeting, Museum of Art, San Francisco, Calif.
22-23 IES Pacific Northwest Regional Meeting, Benjamin Franklin Hotel, Seattle, Wash.
28-30 IES Canadian Regional Meeting, King Edward Hotel, Toronto, Ont.

**MAY**

2- 5 EEI Purchasing and Stores Committee, Hotel Roosevelt, New York, N. Y.
3- 4 IES Great Lakes Regional Meeting, Sheraton Cadillac Hotel, Detroit, Mich.
13-14 PUAA Annual Convention, Hotel Statler, Boston, Mass.
19-21 Pacific Coast Electrical Association Annual Convention, Hotel Del Coronado, Coronado, Calif.

**JUNE**

1- 4 EEI ANNUAL CONVENTION, Atlantic City, N. J.
14-19 ASCE Convention, Chalfonte Haddon Hall, Atlantic City, N. J.
17-19 IES Midwestern Regional Meeting, Hotel Jefferson, St. Louis, Mo.
24-26 CEA Annual Convention, Murray Bay, Quebec, Que.
27-30 Michigan Electrical Association Annual Convention, Grand Hotel, Mackinac Island, Mich.

*The* EDISON ELECTRIC INSTITUTE
BULLETIN

# Wanted: Fair Play

**Walter H. Sammis**
*President, Edison Electric Institute*

An address before the 35th Annual Convention of The National Exchange Club, Colorado Springs, Colo., September 26, 1953

THE free-enterprise system got started in this country in colonial days. According to historians, three years after the landing of the Pilgrims, men of the colony became dissatisfied with their lot of working, farming, hunting, fishing, and then storing the fruits of their labor in a common warehouse to be rationed out to all as supplies. Strong and skillful men got tired of dividing crops with those who did less work. Women, encouraged by their husbands, began to voice objections to cooking, weaving, and working in the fields for other than their own families. So it was that Governor Bradford decided to give each family a plot of ground, permitting each family to keep everything it raised, but insisting that each family must depend upon its own work to provide it with food and clothing. The plan, so the governor wrote in his diary, was a great success, the colonists became industrious and contented, some families had surpluses to sell, and famines disappeared. As this system was found to work not only here but in other locations, it was handed down from generation to generation and has become synonomous with America's progress.

The principle that all men are created equal and endowed by their Creator with certain inalienable rights—among them life, liberty, and the pursuit of happiness—is set forth in the Declaration of Independence and the Revolutionary War was fought in order to establish a government that would maintain, respect, and preserve the rights of freedom of the individual.

Our forefathers in drafting the Constitution delegated only certain specified powers to the Federal government and carefully reserved to the states and the people all powers not so delegated, for liberty comes not from government but from the people themselves. The free-enterprise system has thus been used to preserve the individual liberty and rights of all the people and it is not, as some seem to think, the property of business. Free enterprise is an instrument of the people, a means of getting things done by the people for their own benefit—the system for their individual and personal well-being. Under this philosophy Americans have become the best fed, best clothed, best housed people on earth. These latter facts should be obvious to all. I'm sure they have been deeply impressed upon all who have seen military service overseas.

### United States' Production High

Most recently available figures show that with less than 7 per cent of the earth's population, the United States has 54 per cent of all the telephones in the world, 85 per cent of the automobiles, 48 per cent of the radios, 50 per cent of all steel capacity. We supply nearly half of the world's manufactured goods.

Electric power as a bellwether of progress also presents an impressive picture. In 1952 the United States generated 42 per cent of the world's electric energy supply, and our electricity per capita was 2984 kwhr. This was twice the per capita production in Great Britain, two and one-half times that in West Germany, three times that in France, and over five times that in Russia. Electricity per capita in the United States continues to grow. Last year's figure of 2984 kwhr compares with 1247 in prewar 1939, an increase of 140 per cent.

The benefits that have accrued to the American people under the system of free enterprise are further shown by these additional statistics in the electric light and power field. When Thomas Edison placed the first electric lighting company in operation in New York City in 1882, electricity sold for about 24 cents a kilowatthour for residential use. By 1907, or 25 years later, average price for the nation was down to 10.5 cents. In another 25 years, or by 1932, it was down to 5.6 cents. In prewar 1939 it was 4 cents, and at the end of last year it had dropped still further to 2.77 cents a kilowatthour. The early declines in prices resulted principally from major technological advances in the electric art. The reductions in more recent times resulted from numerous factors, including further refinements in equipment and methods and in the continually increasing use of electricity by the consumer, thereby increasing production, raising the standard of living and improving the comforts and enjoyments of life for all.

The household user paid only one per cent of his disposable personal income for electricity in 1952, as compared with 1.2 per cent in 1939. The manufacturer spent only .6 of one per cent of the cost of his finished product for electricity in 1952 as compared with 1.4 per cent in 1939.

This record since prewar days is all the more remarkable in view of the inflation that has occurred during this era. To the best of my knowledge, the consumer of electric-

ity has fared better than the user of any other commodity or service during this period of high prices.

Like that of many other industries, the early progress of the electric business was marked by the struggles of devoted men to convince a doubting public of the advantages to be gained from the widespread use of the commodity or service. Edison, himself, visualized the elements of an electric light and power system but had not sufficient funds to develop it in detail. The money invested in the first Edison Electric Light Co. enabled him to continue his work, and despite skepticism and ridicule, he justified the investors' trust in him and brought the age of electricity to the world. Much the same story could be told for Alexander Graham Bell and the telephone, Henry Ford and the automobile, James B. Duke and tobacco, Robert Dollar and shipping, George Eastman and the Kodak, William Douglas and shoes, Julius Rosenwald and the mail order business. Benjamin Franklin, whose early printing ventures led to the founding of what is today the Saturday Evening Post, by dint of hard work and thrift was able to retire from business at the age of 42 and thereafter devote himself to public service.

### Profit Motive Major Incentive

It is a tribute to the essential faith of these men in the American way of business that they did not give up. The profit motive, of course, was a major factor in keeping them and their associates constantly at work overcoming obstacles, improving their products, and seeking widening public acceptance. They believed in the old adage of Ralph Waldo Emerson: "If a man can write a better book, preach a better sermon, or make a better mouse-trap, than his neighbor, though he builds his house in the woods, the world will make a beaten path to his door."

Since the profit motive has always been approved by the great majority of the American people as a proper incentive to our way of doing business, it is nothing short of alarming to observe the extent to which the Federal government has gone into proprietary business in competition with its citizens. Last June the Government Operations Subcommittee on Intergovernmental Relations of the House of Representatives began a study of the extent to which the government owned or operated enterprises compete with private business. Representatives from such varied industries as coffee roasting, retail trade, wood boxes, ice cream, rope, paint, printing and binding, and tug boat and barge operations testified they had to buck the tax-free, overhead-free business of the government, while at the same time, in effect, they were compelled to pay heavy taxes to keep their "competitors" going. A tabulation presented showed over 100 such different governmental activities.

A compilation by the Tax Policy Committee of the Edison Electric Institute lists 190 electric companies that have been liquidated or are being dismembered as a result of government activities. Of these, 43 have been taken over in their entirety by the Tennessee Valley Authority and various state and municipal bodies. Another 55 companies have lost part of their property to these same government agencies. A total of 72 electric companies have been taken over in whole or in part by REA projects promoted and financed by the Federal government. Federal money has been allotted for another 20 such transactions.

Twenty years ago the power generating capacity of the Federal agencies was .7 of one per cent of the industry's total. Today it is 12 per cent. Federal generating capacity has increased more than 40 times in this 20-year period. This generating capacity financed by billions of the taxpayers' dollars amounts today to approximately 10,500,000 kw. Although, by itself, this figure is alarming, the real danger lies in what could be built on this foundation, if indifference to, neglect or lack of understanding of, this situation should persist.

Some 9,500,000 kw of additional generating capacity are now in various stages of construction for new Federal plants and additions to existing Federal plants, and close to 9,000,000 more kilowatts have been authorized by Congress, although all of the necessary appropriations have not yet been made. Above and beyond this, nearly 40,000,000 kw more have been listed by Federal government agencies.

The total of all of these projects now in service, building, or contemplated would come to over 69,000,000 kw—as much as the present total generating capacity of America's investor-owned electric companies.

When the Federal government began building multi-purpose dams in the Tennessee Valley, on the Columbia River, and elsewhere, it was claimed that the production of electricity would be a by-product or incidental to some constitutional functions such as navigation, irrigation, or flood control. That the real purpose was to produce electricity was plainly stated in 1942 in litigation involving Mayor Creech of Sumter, S. C., on behalf of himself and others, and the South Carolina Public Service Authority. The authority, created by act of the state legislature and aided by a loan and grant from the Federal government, had built the $57,000,000 Santee-Cooper power project in South Carolina. When completed, it was like the lady who was all dressed up but had no place to go. The authority had no market for the power. It sought to condemn some private power companies in the area, to force them to sell out to the authority. Mayor Creech sought an injunction to prevent the sale. The South Carolina Supreme Court granted the injunction.

### Real Purpose Was Power Business

The authority petitioned for a rehearing in which it was stated that the Supreme Court of South Carolina in considering the case should have known that, while the act creating the state power authority referred to improving rivers for navigation and commerce, this was only a constitutional safeguard, that the real purpose was to put the state in the power business.

Let me quote a paragraph from the petition for rehearing filed by the authority:

> In the great national projects like the Bonneville Dam, the Boulder Dam, and the TVA, the improvement of navigation, reclaiming waste lands, and the creation of a "yardstick" for electric rates are illustrations of legislative declarations intended to overcome the probable hostile attacks, while at the same time

everybody understood and now knows it as a fact that the object of the named projects, and of scores of others that have since been undertaken, was to socialize, so to speak, the business of producing and distributing electric energy through public grants and public ownership.

One of the most recent attempts of government power advocates to have government enter the power business has been at Niagara Falls, which is not to be confused with the St. Lawrence Seaway and power project some 250 miles distant. At Niagara Falls the issue is power, and power alone. Admittedly there is no flood control, no navigation, no irrigation. Five private power companies in New York State have offered to develop jointly additional power on the Niagara River at no cost to the taxpayers, but in reality to pay about $23,000,000 a year in taxes. One of these companies has had power plants at Niagara since 1895 and originally advanced the idea of further development of power at the falls more than 30 years ago. Three bills have been introduced in Congress—one for development by the five companies, another by the Federal government, and a third by the State of New York. Last July the House, after Committee hearings, passed the private power bill by a vote of 262 to 120. No bill was reported out by the Senate Public Works Committee, as hearings by that committee were not completed.

Another example of power development—and in this case with only negligible incidental functions of river control—is the Hell's Canyon project on the Snake River in Idaho, where the Idaho Power Co. and government power advocates are involved. Idaho Power Co. has on file with the Federal Power Commission an application to build three power dams to cost a total of more than $130,000,000. The Interior Department originally registered with the commission strenuous objections to the power company's application for a license, in favor of a development of its own. The development is estimated to cost $400,000,000. The Department of Agriculture also registered its objection. Recently, the two Federal departments withdrew their objections, and the Federal Power Commission will decide whether or not the application of Idaho Power Co. should be granted. Hearings have already taken place.

Another argument advanced by Federal power advocates from time to time is that the investor-owned companies cannot take care of the large growth in the requirements for electricity. This contention is not true. On the contrary, the story of the industry's expansion is unrivaled in American economic history.

The record of the investor-owned electric power companies of this country since the close of the last war in providing new generating equipment and other electric facilities to meet the ever expanding requirements of the nation for light and power is probably unequalled by any other segment of our economy. Total investment in their electric facilities has increased from a little over $12,000,000,000 in 1945 to about $25,000,000,000 today. According to the Survey of Current Business, U. S. Department of Commerce, expenditures for new plant and equipment for all industries in the country since the war have amounted to only slightly over $150,000,000,000, which indicates that the electric companies' expansion accounts for one-twelfth of the total. For 1953, public utilities as a group account for $4,425,000,000, or 16 per cent of the total of $27,821,000,000 for all history.

### 90,000,000 Power Company Investors

Most of this new capital comes from the investing public. This poses a question: Who are the investors in power companies? There are about 3,000,000 stockholders and a large number of bondholders. Through life insurance policies, mutual savings bank deposits, pension funds, investment funds, charitable, religious, and fraternal organizations, about 90,000,000 people in America are indirect investors in power companies.

Further striking proof of the industry's ability to meet the nation's requirements is evidenced by the contract signed last year by the Ohio Valley Electric Corp. to supply 1,800,000 kw of electricity to the new atomic plant of the Atomic Energy Commission being built in Pike County, Ohio. That's 2,500,000 hp. This agreement calls for the largest block of power contracted in industrial history. Ohio Valley Electric was formed by 15 private electric companies, already doing business in Ohio and neighboring states, to meet this unprecedented demand of the government for power. Two huge steam power stations—one in Ohio and one in Indiana—and connecting transmission lines are now under construction to supply this energy. Financing in the amount of $440,000,000 has been arranged through private capital and includes the largest direct placement of a single issue of securities in the history of the investment banking business: $360,000,000 through the sale of 3.75 per cent bonds to 29 insurance companies, seven pension funds, and two savings banks, $60,000,000 through the sale of unsecured notes to 12 banks and two pension funds, and $20,000,000 to be supplied by the sale of common stock to the sponsoring utility companies.

In the light of the foregoing one might ask: Why should the government go into the power business? Is it a function of government to be in proprietary business in competition with its citizens? Government in the power business is a threat to all private business, and without private enterprise there cannot long remain real individual freedom. We in the utility business see this matter of government encroachment in the power field as extremely important to every other industry and to each citizen as well. For, make no mistake, if government can go into the power business, it can go into the shoe business, grocery business, automobile business, or any other business, including farming. And it is now. The 100 activities I mentioned show how the trend has been developing. There is no limit to government competition with business, if the public does not check the practice.

Government may properly impose reasonable safeguards upon business in the public interest but should not operate business. It should not play in the game for which it makes the rules. In other words, government should not try to be referee and quarterback at the same time.

Our Federal government needs tax monies to operate, and every industry should pay its fair share of taxes for this purpose. Where government

goes into proprietary business, it should pay taxes to the same extent and on an equal basis with investor-owned proprietary business; otherwise the customers of private business will not enjoy the same advantages as customers of government in business. But quite the opposite is true. Government in business pays no Federal taxes and makes little, if any, payments in lieu of state or local taxes, and in some instances the interest against the capital it employs is not charged against the government proprietary operation. In those instances where interest is charged, it is at a rate obtained from the issuance of government bonds, which rate is far below what industry must pay in the same money market, because of the nature of the credit behind the obligation — no credit being better than the Federal government's. Further, there are often other items of expense absorbed by the government and not charged to government proprietary operations. This is unfair, for it results in customers of private business subsidizing customers of government business.

If the government with the monies of its citizens is going to compete with them in business, it should operate government proprietary business on an equal basis with private proprietary business, charging to its business the true costs of doing business and not base government proprietary business prices on subsidized costs at the expense of the customers of private business and the general taxpayer. Further, the Federal government going into proprietary business is one of the reasons our national debt is at the present level of approximately $273,000,000,000.

### Present Taxation a Ruinous Load

Some men of finance are warning that the American investment system cannot long survive its present heavy and destructive load of taxation. This load can be more equitably distributed if government enterprises are taxed equally with private businesses with which they compete. And, further, the sale of such facilities could help reduce the national debt.

One might ask, if the customers of the government can obtain their commodities or services cheaper, why not have government displace all proprietary business? If this took place, where would our Federal tax monies come from? Would we not end up with complete nationalization of business with everyone working for the state?

In its operations in the power field, the Federal government in most cases, as previously mentioned, pays little, if any, state or local taxes. Since these Federal power operations enjoy benefits provided by local governments, they should pay their fair share of the cost of such benefits. Congress should authorize state and local governments to levy taxes against the power facilities and power business of Federal agencies on the same basis that such taxes are levied against private business.

### Government Pays Other State Taxes

There are several precedents for this recognition of the obligation on the part of the Federal government to assume part of the costs of local government. In the District of Columbia, the seat of the national capital, the Federal government, according to Moody's Manual, pays over ten per cent of the costs of the district's operations. The Federal government also contributes or pays local government costs in some areas where plants of the Atomic Energy Commission are located and in other instances pays substantial sums for schools and other government purposes. In recent years the property holdings of the Federal government have greatly expanded throughout the nation, and the principle that caused Congress to assume a share of the cost of certain local government operations should reasonably be applied generally throughout the nation and particularly to a Federal government proprietary operation.

Another discrimination practiced by the Federal government in the power business is the preference which Congress has decreed shall be given to public bodies and cooperatives in the sale of electricity from Federal government projects. This discrimination against the customers of the private companies is unfair and un-American. It should be eliminated so that customers of private enterprise, cooperatives, or government operations will be treated alike.

As long ago as 1945 the electric utility companies of this country publicly stated their position with respect to river development in advertisements appearing in national magazines. The declared policy:

> If power is produced at government-built dams, it should be sold to existing power systems, without special privilege or discrimination. This will save the expensive duplication of transmission facilities, help to coordinate the entire power supply of each region, and assure its widest possible use at the lowest practical rates.
>
> Any savings made possible by this plan should be passed along to the users of electricity, under regulation by State Commissions or other properly constituted regulatory bodies. This will assure all the benefits of river development and hydro-power without the added expense of government going into business and competing with its own citizens.

There are a few signs at long last that indicate some change for the better may take place. The Department of Interior recently issued a statement of power policy which recognizes that private capital should have an opportunity to participate in the development of water resources along with local government agencies and with the Federal government. Under this stated policy the Federal government remains in the power business on a large scale and may expand its holdings but does back away from assuming full responsibility for the power supply of extensive river basins, a responsibility which, when backed by huge appropriations from the Federal treasury, would inevitably lead to the nationalization of power throughout the nation.

### New Policy at Least Encouraging

The effect of the new policy will depend largely on interpretations by Federal department, bureau, and agency officials, and these interpretations, in turn, are bound to influence public sentiment in the areas where government power is being or would be supplied.

The new policy of the Interior Department can remove only part of the discriminations against the customers of the power companies.

*(Continued on page 422)*

# Skills of EEI Accounting and Commercial Committees Marshaled to Advance Industry

## *EEI Accounting Division*

FOLLOWING their formation last June, the 1953-54 committees of the EEI Accounting Division embarked upon active programs designed to increase operating efficiency, improve customer relations, and initiate and publicize new accounting techniques and equipment. At the committee organizational meetings held in Detroit, Mich., on September 15-18, 1953, the committee programs, which will again be carried out in conjunction with committees of the American Gas Association, were formalized in enthusiastic, working meetings, which gave promise of one of the most productive years in the history of the Accounting Division.

Many committee reports and studies will be completed for presentation at the National Conference of Electric and Gas Utility Accountants, to be held in Boston, Mass., on April 12-14, 1954. Because of their short-term nature, however, some reports will be forthcoming as interim releases, whereas others will be developed as long-term projects to be carried over into the next administrative year. In addition, the committees will continue work on unfinished projects begun last year and will prepare data supplemental to previously completed studies.

As the result of a questionnaire sent to accounting executives, many valuable suggestions on projects to be undertaken by the committees were received and will be pursued.

### Accounting Division Executive Committee

The Accounting Division Executive Committee supervises, guides, and approves the general programs of the Accounting Division and acts as its policy-making group. Included among its members ex-officio are chairmen of all standing committees and executive subcommittees. The committee is under the chairmanship of W. D. VIRTUE, Public Service Co. of Colorado, and vice chairmanship of O. K. BOYD, Consolidated Gas Electric Light and Power Co. of Baltimore, who head the accounting work of the Institute.

W. D. VIRTUE

*Chairman* of the Accounting Division Executive Committee

At the present time, special subcommittees report to the executive committee on subjects other than those falling within the scope of the standing committees. During the present administrative year, the following subcommittees of the Accounting Division Executive Committee will be active:

1. *Subcommittee on Uniform System of Accounts*—Chairman, P. R. LAWSON, Pennsylvania Electric Co.

This subcommittee has reviewed the proposed revisions in the uniform system of accounts for electric utilities submitted by the NARUC Committee on Accounts and Statistics and is presently considering points upon which disagreement still exists. It is cooperating with a similar AGA subcommittee, under chairmanship of ARTHUR SKELTON, The Peoples Gas Light & Coke Co., anticipating review of the system of accounts for gas utilities, which will incorporate many changes proposed in the electric classification.

2. *Subcommittee on Accounting Employee Relations* — Chairman, J. D. ELLIOTT, The Detroit Edison Co.

The subcommittee is planning to prepare several papers for presentation at the spring conference and is exploring subjects of general interest to be used as discussion material for an open forum meeting scheduled for the conference.

The general theme of the forum will be "Employee Morale and Motivation." Four subjects closely allied to the theme will be considered under the guidance of discussion leaders, each of whom will make brief statements on the problems and ramifications of their assigned subjects, after which considerable time will be given to open discussion. The titles of the subjects are "Controlling Absences," "Are Rest Periods Productive," "Balance Between Established Rules and Supervisory Judgment," and "The Employee at His Maximum."

In continuing its long-range project, "To Better Accounting Employee Relations Through Improvement in the Selection, Orientation, Training, and Development of Supervisors," the subcommittee is examining various approaches within and outside the industry to supervisory orientation. The effort extended toward such orientation varies greatly among companies, and there is general feeling that there is much to be done in this area. Emphasis is being placed on this study to make it appropriate for possible presentation at the general session of the conference.

Other projects to be undertaken by the committee will concern "Employee Selection," "Employee Orientation," and "Employee Opinion."

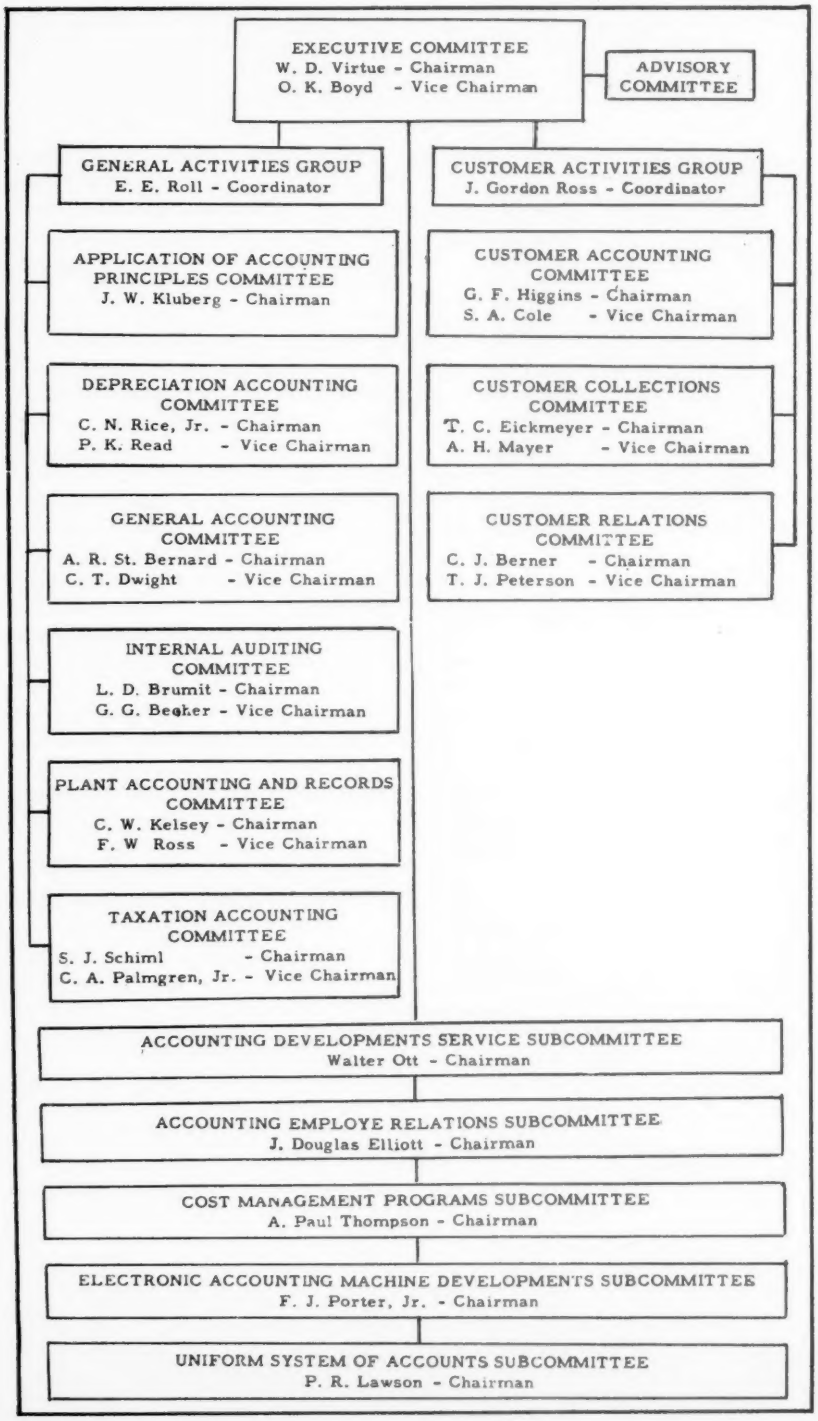
3. *Subcommittee on Accounting Developments Service*—Chairman, WALTER OTT, The Cincinnati Gas & Electric Co.

The subcommittee seeks to gather

from member companies information on new accounting techniques for distribution throughout the industry in the form of Accounting Developments Service bulletins. It also circularizes the industry with recent developments in office equipment of particular interest to public utility accountants. Because of increasing interest in and rapid development of electronic equipment, special attention has and will be given to prompt announcement of new electronic equipment and new uses of such equipment.

In the next ADS bulletin, the subcommittee proposes to provide a more flexible index system for material accumulated in the Accounting Developments Service. In addition, efforts are being made to engage correspondent members associated with state and regional electrical associations to stimulate reporting of material developed in meetings of these associations during the coming year. The bulletin, however, will still be dependent upon submittal of new material by member companies and upon close coordination with equipment manufacturers.

## EEI Accounting Division Organization Chart


EXECUTIVE COMMITTEE
W. D. Virtue - Chairman
O. K. Boyd - Vice Chairman
ADVISORY COMMITTEE
GENERAL ACTIVITIES GROUP
E. E. Roll - Coordinator
CUSTOMER ACTIVITIES GROUP
J. Gordon Ross - Coordinator
APPLICATION OF ACCOUNTING PRINCIPLES COMMITTEE
J. W. Kluberg - Chairman
CUSTOMER ACCOUNTING COMMITTEE
G. F. Higgins - Chairman
S. A. Cole - Vice Chairman
DEPRECIATION ACCOUNTING COMMITTEE
C. N. Rice, Jr. - Chairman
P. K. Read - Vice Chairman
CUSTOMER COLLECTIONS COMMITTEE
T. C. Eickmeyer - Chairman
A. H. Mayer - Vice Chairman
GENERAL ACCOUNTING COMMITTEE
A. R. St. Bernard - Chairman
C. T. Dwight - Vice Chairman
CUSTOMER RELATIONS COMMITTEE
C. J. Berner - Chairman
T. J. Peterson - Vice Chairman
INTERNAL AUDITING COMMITTEE
L. D. Brumit - Chairman
G. G. Becker - Vice Chairman
PLANT ACCOUNTING AND RECORDS COMMITTEE
C. W. Kelsey - Chairman
F. W Ross - Vice Chairman
TAXATION ACCOUNTING COMMITTEE
S. J. Schiml - Chairman
C. A. Palmgren, Jr. - Vice Chairman
ACCOUNTING DEVELOPMENTS SERVICE SUBCOMMITTEE
Walter Ott - Chairman
ACCOUNTING EMPLOYE RELATIONS SUBCOMMITTEE
J. Douglas Elliott - Chairman
COST MANAGEMENT PROGRAMS SUBCOMMITTEE
A. Paul Thompson - Chairman
ELECTRONIC ACCOUNTING MACHINE DEVELOPMENTS SUBCOMMITTEE
F. J. Porter, Jr. - Chairman
UNIFORM SYSTEM OF ACCOUNTS SUBCOMMITTEE
P. R. Lawson - Chairman

4. *Subcommittee on Electronic Accounting Machine Developments* — Chairman, F. J. PORTER, JR., Consolidated Edison Co. of New York, Inc.

Organized in 1951, the subcommittee will continue to keep abreast of developments in electronics for application in all fields of accounting. Information collected will be made available to the industry through the Accounting Division Executive Committee, the National Conference of Electric and Gas Utility Accountants, and the periodic bulletin, *Tubes and Tapes*, issued by the joint EEI-AGA electronic subcommittees.

5. *Subcommittee on Cost Management Programs*—Chairman, A. PAUL THOMPSON, Iowa Power & Light Co.

This subcommittee was established in 1951 because of the increasing necessity for better management of costs. Subcommittee plans for the current administrative year call for an early meeting of both EEI and AGA members to designate specific projects for development.

Chairman W. D. VIRTUE has been Vice President and Treasurer of Public Service Co. of Colorado since September of this year. A native of Missouri, he graduated from the University of Missouri in 1919 and served with the Navy during the latter part of World War I. He entered the utility field as a junior engineer for Denver Gas and Electric Light Co., a Public Service Co. predecessor, transferring to the Accounting Department in 1921 and becoming chief accountant in 1928. Mr. Virtue received his law degree from Westminister Law School and was admitted to the bar in 1942. He was elected vice president and secretary of his company in 1943 and became a director in 1948. Active in civic, social, and professional organizations, he is a member of Controllers Institute of America, American Gas Association, Kiwanis Club, American Legion, and a past board member of the Denver Chamber of Commerce.

J. W. KLUBERG
*Chairman* of the Application of Accounting Principles Committee

### Application of Accounting Principles Committee

Under the chairmanship of J. W. KLUBERG, Consumers Power Co., the Application of Accounting Principles Committee keeps informed on development of principles, conventions, and practices in the accounting profession, with special reference to their application to the electric industry, and attempts to promote industry understanding of such development.

The committee also acts as a point of reference when opinion is desired on electric industry application of accounting changes proposed by professional accounting organizations, regulatory authorities, or other sources. In this capacity, the committee renders advisory opinions from time to time to the American Institute of Accountants and other groups.

Chairman JOHN W. KLUBERG is Controller of Consumers Power Co. Born in Geneva, Ill., he attended the University of Illinois School of Commerce, from which he graduated in 1937. That same year he entered the field of public accounting with the firm of Arthur Andersen & Co., which he served for 14 years before becoming associated with Consumers Power. Mr. Kluberg is a Certified Public Accountant in the states of Illinois and Michigan.

## CUSTOMER ACTIVITIES GROUP

The Customer Activities Group is headed by Coordinator J. GORDON ROSS, Rochester Gas and Electric Co., who supervises the three committees comprising the group. These committees and their programs follow.

Coordinator J. GORDON ROSS, Manager of Customer Service and Relations for Rochester Gas and Electric Co., served two years with the Army in World War I, after which he spent a year in the oil business in Kentucky. He joined Rochester Gas and Electric in a clerical capacity in 1920, being promoted to superintendent of the Customer Service Department in 1922 and to his present post in 1945. In the thirties, when the company's Credit Department was one of his responsibilities, Mr. Ross became active in local credit groups and was named president of the Rochester Retail Credit Association. He subsequently became the first utility man ever to serve as a director and later as president of the National Retail Credit Association. He is active in the Rochester Chamber of Commerce and Community Chest, is a director of the Rochester Better Business Bureau and National School District, and has been a committeeman of EEI and AGA for many years.

### Customer Accounting Committee

Under the chairmanship of G. F. HIGGINS, The Detroit Edison Co., and vice chairmanship of S. A. COLE, New York State Electric & Gas Corp., the Customer Accounting Committee will develop seven subjects jointly with its AGA affiliate for presentation at the spring conference. This material should provide a diversified program of mutual interest to small and large electric and gas utilities.

One project will be approached technically in the formulation of a training program for customer accounting employees. This program will embrace the training of new employees, transferees, training for advancement, and preparation of progress reports.

Procedures of a representative number of utility companies relative to receipt and distribution of cash payments will be analyzed to determine the various methods used in the processing of cash coupons from the time they are received until posted to account records and balanced. A summarization of these analyses will include interesting highlights of the procedures.

J. GORDON ROSS
*Coordinator* of the Customer Activities Group

G. F. HIGGINS
*Chairman* of the Customer Accounting Committee

A group composed of Customer Accounting and Customer Relations Committee members will report on various customer accounting methods, records, forms and practices that have resulted from progress in billing equipment and will also report on the effects of these changes on customer relations.

A plan for controlling meters and maintaining customer count will be prepared from a review of different routines employed by the industry.

A study of statistical reports prepared for other departments by customer accounting departments of several companies will disclose report types, sources of information, methods of preparation, frequency, and purpose. This data will be supplemented with a commentary.

A "yardstick" to be used for controlling costs and increasing efficiency in various functions of customer accounting will be developed by using man-hours for the measurement of productivity.

Lastly, a report will be prepared from an analysis of information obtained from a number of companies with and without supervision of meter readers in the field to determine if this supervisory function pays.

Chairman G. F. HIGGINS is General Office Supervisor of the Meter Reading Department of The Detroit Edison Co. His entire business career has been spent in the employ of Detroit Edison, which he joined in 1926 as a clerk in the Auditing Department. In 1934 he was named group supervisor in the Meter Reading Department, rising to his present post in 1941. A native of Michigan, he is a business administration graduate of the University of Detroit and is a member of the National Association of Cost Accountants.

T. C. EICKMEYER

*Chairman* of the Customer Collections Committee

### Customer Collections Committee

The Customer Collections Committee, under the chairmanship of T. C. EICKMEYER, The Dayton Power and Light Co., and vice chairmanship of A. H. MAYER, Consolidated Edison Co. of New York, Inc., is planning its projects primarily for presentation at the spring conference.

A luncheon committee has been selected to arrange a Tuesday luncheon meeting at the conference, at which time an outside speaker is scheduled to present a talk, preferably on credits and collections from the economist's viewpoint. Following the luncheon, an afternoon session will be devoted to consideration of topics such as "How to Arrive at Collection Cost," "No Collector Plan," "Close Collection Follow-up on Current Accounts," "What's New in District Collection Activities," and "Adding Arrears Bills to Current Bills."

"Merchandise Credit and Collection Policies" will be studied for presentation as a report at the Tuesday morning session of the Customer Activities Group. The report will include consideration of appliance sales, credit sales paper, collections, and service repairs. At the Wednesday morning session of the Customer Activities group, the committee plans to discuss "Why Don't Our Customers Pay Their Utility Bills," which will cover conditions affecting customer paying habits.

During the year, the committee will continue to summarize information assembled from electric and gas utilities for "The Credit Picture," which appears semi-annually in the BULLETIN and the *AGA Monthly*.

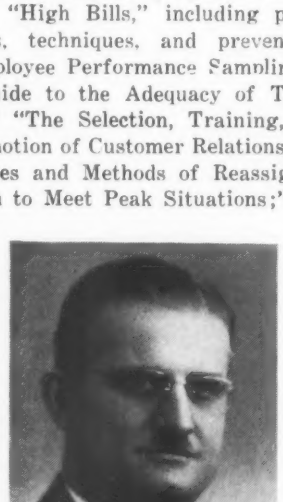
Chairman T. C. EICKMEYER, employed by The Dayton Power and Light Co. for the past 22 years, is presently Assistant Credit Manager of the company, working on cash receipts, customer contact, collections, and credit. He has a B.S. degree in commerce and finance from the University of Dayton. Mr. Eickmeyer has held various positions in Dayton Power and Light including those of meter reader, clerk, auditor, district accounting representative, and district office supervisor, prior to his present assignment.

### Customer Relations Committee

Under the chairmanship of C. J. BERNER, Wisconsin Electric Power Co., and vice chairmanship of T. J. PETERSON, The Detroit Edison Co., the Customer Relations Committee is planning an active program for the year. Each project group is scheduled to meet at least once by November 15, 1953. The committee will then meet on December 10, 1953, in Washington, D. C., at which time project chairmen will submit their projects in semi-finished form. Finished projects are to be submitted to the committee chairman by January 31, 1954.

Among the studies to be undertaken by the committee will be "Simplified Accounting and Customer Relations," which will consider how best to achieve simplified accounting while maintaining and improving customer relations. This will be a joint study in cooperation with the Customer Accounting Committee.

Other committee projects will concern "High Bills," including procedures, techniques, and prevention; "Employee Performance Sampling as a Guide to the Adequacy of Training;" "The Selection, Training, and Promotion of Customer Relations Employees and Methods of Reassigning Them to Meet Peak Situations;" and



C. J. BERNER

*Chairman* of the Customer Relations Committee

E. E. ROLL

*Coordinator* of the General Activities Group

"The Causes of Customer Inquiries and How These Inquiries Can Be Reduced."

The committee's major long-range project on "Training by Manual and by Film" should be ready for distribution before the end of this calendar year. The long-range projects on customer correspondence and opinion surveys have been abandoned at this time.

Chairman CLARENCE J. BERNER has been Assistant Auditor in Charge of Customer Contacts for the Wisconsin Electric Power Co. since 1947. He studied accounting and allied subjects at Marquette University and joined Wisconsin Electric in 1925 as accounts information clerk. Before attaining his present position, he served as assistant collection supervisor, collection supervisor, and assistant auditor of customer accounts in charge of production. He is a past president of both the Milwaukee Retail Credit Association and the 13th district of the National Retail Credit Association. He is also past chairman of the Customer Relations Committee of the Wisconsin Utilities Association.

## GENERAL ACTIVITIES GROUP

The Coordinator of the General Activities Group is E. E. ROLL, The Detroit Edison Co., who supervises the work of the committees comprising the group. Brief statements on these committees and their projects follow.

Coordinator E. E. ROLL, a Certified Public Accountant in Illinois, is Assistant General Accountant and Assistant Secretary of The Detroit Edison Co. He has been with the company since his graduation from the University of Illinois in 1928, when he received a B. S. degree in accounting from the College of Commerce. Mr. Roll is a member of the National Association of Cost Accountants and a director of the Detroit Chapter. He is also a member of the Detroit Board of Commerce, Economic Club of Detroit, and American Society of Corporate Secretaries.

### Depreciation Accounting Committee

The Depreciation Accounting Committee, under the chairmanship of C. N. RICE, JR., Northern States Power Co., and vice chairmanship of P. K. READ, New York State Electric and Gas Corp, will continue to work on several important projects previously started and is undertaking a number of new projects to be completed in time for the spring conference. Several subcommittees have been formed and are already well started on their assignments.

As in the past, some of its work will be for the benefit of and limited to committee membership. This category includes a survey to determine survivor curve types characteristic of each of the various classes of electric and gas property. Closely related to this, a canvass is being made to enable tabulation of average life publicly used for the several plant accounts. Both reports will be completed prior to the close of the Institute year.

Although much has been said about it already, additional work is being done with respect to the declining value of the dollar and its effect upon the depreciation reserve and other accounts. It is expected that a report summarizing various viewpoints on the subject will be prepared jointly with other committees.

The committee is cooperating with the Tax Committee and other committees in appointing one of its members to a joint subcommittee which is watching new developments concerning depreciation in income tax returns and studying the effect of amortization of emergency facilities, accelerated depreciation, and economic depreciation.

A subcommittee has been working and will continue to work in cooperation with the Subcommittee on Uniform System of Accounts in connection with the development of a satisfactory definition of depreciation and the associated requirements proposed for accounting.

The committee is continuing preparation of a treatise which will explain the several methods of computing depreciation accruals and hypothetical depreciation reserves. This will be a compendium of various methods which have been developed, with remarks pertaining to the mathematical application, advantages, and limitations of each under various circumstances. This is a substantial undertaking which has been under way for some time and most likely will not be completed this year, although it is expected that drafts of some sections will be available for discussion at the spring conference.

C. N. RICE, JR.
*Chairman* of the Depreciation Accounting Committee

A summarization and commentary on this year's court and commission findings which affect depreciation will be prepared and offered at the conference, and a more technical paper explaining the effect of changes in average life and dispersion on the size of a theoretically computed depreciation reserve will also be presented.

In addition, it is planned that the spring meeting will include a panel discussion of subjects of general interest, open to questions from others who may attend.

Chairman C. N. RICE, JR., has been Manager of the Plant Accounting and Valuation Department of Northern States Power Co. (Minn.) since the department's establishment in 1950. A native of Massachusetts, he is a 1923 electrical engineering graduate of Worcester Polytechnic Institute. After graduation, he was first employed by the New England Telephone and Telegraph Co. and later was associated with Professor A. S. Richey in public utility valuation work for about three years. In 1928 he entered the Valuation Department of the Byllesby Corp., and his first job with Northern States Power was in valuation work at St. Paul. From 1933 to 1950 he was in charge of NSP's Valuation Department. Mr. Rice is a past president of the Reddy Kilowatt Club in Minneapolis, past president of the Men's Garden Club of Minneapolis, past director of the Minnesota Horticultural Society, and is a charter member of the Natural History Society of Minnesota.

A. R. ST. BERNARD
*Chairman* of the General Accounting Committee

### General Accounting Committee

Headed by Chairman A. R. ST. BERNARD, The Cleveland Electric Illuminating Co., and Vice Chairman C. T. DWIGHT, The Hartford Electric Light Co., the General Accounting Committee presently has five subcommittees working on its program for the coming year.

The Subcommittee on Financial Reporting is preparing a report on the 1952 annual reports of 56 utilities. The report will provide a four-year comparison and will be available about December 1, 1953. The study of internal reports to management started last year will be continued and will be completed before the annual conference. New studies undertaken by the subcommittee this year concern "Present Practices in Reporting Labor Costs to Management" and "Use of Charts in Reporting to Top Management."

The Subcommittee on Budgeting and Forecasting is working on the "Development of Principles Underlying Responsibility for Forecasting Labor Requirements," and the Subcommittee on Methods and Procedures is making a study of forms control programs for presentation at the spring conference. The Subcommittee on Capitalization of Indirect Costs, in addition to being available for special studies on indirect costs, will undertake development of material on "Working Capital in the Rate Base."

The Subcommittee on Accounting Techniques has initiated two short-term projects on (1) allocation of expenses in combination companies and (2) accounting for supervision and engineering, as well as a long-term project relating to (1) reporting la-

bor in the field, (2) use of the exception principle in reporting time worked, and (3) use of departmental or average labor costs in distribution of labor costs. Selected for possible presentation at the spring conference were studies on (1) purchasing and stores accounting procedure and (2) items included in stores expense.

Chairman A. R. ST. BERNARD is Manager of the General Accounting Department, The Cleveland Electric Illuminating Co. Educated in Cleveland's public schools, he attended college in Chicago and took additional training at Cleveland College, Dyke School of Commerce, and Ohio University. He has been with CEI for 20 years and has been associated with the Construction Costs, Service, Methods, and Internal Auditing Departments, as well as with the General Accounting Department, of which he became manager in 1951. Before joining the Cleveland company he spent two years with the Texas-Louisiana Power Co. Mr. St. Bernard is a member of the Cleveland Chamber of Commerce and the City Club of Cleveland, and is a director of the Cleveland Chapter, National Association of Cost Accountants.

### Internal Auditing Committee

The Internal Auditing Committee, headed by Chairman L. D. BRUMIT, Florida Power Corp., and Vice Chairman G. G. BECHER, The Dayton Power and Light Co., completed plans for the 1953-1954 year at the organizational meeting held in Detroit, Mich., September 15-16. These plans were made in conjunction with the comparable AGA committee.

The committee will continue to prepare sections for the Audit Manual, this year's project assignments being confined to operational audits. The new sections will cover the "Purchasing Department," "Stores Accounting Department," "Sales Promotion Department," "Advertising Department," and "Credit and Collection Department," and project chairmen have been named to guide their development. In addition, the "Property Record" section, started two years ago, will be completed this year.

The EEI-AGA Internal Auditing Committees approved a three-session program for the spring conference. A discussion by management representatives as to the value of internal auditing in the utility industry will comprise the first session. In the afternoon, a speaker from the academic field will discuss the value of internal auditing from the standpoint of teaching and training people to meet the qualifications required of the

L. D. BRUMIT

*Chairman* of the Internal Auditing Committee

expanding field of internal auditing. The final presentation of the committee will be related to a workshop panel which has proven to be an ever-popular phase of the conference. Subject matter for this discussion will be determined by the newly created Advisory Subcommittee of the EEI-AGA Internal Auditing Committees.

The committee will carry over the project on case studies again this year, and will continue the publication and distribution, from time to time, of additional case studies of interest to the auditing field.

Chairman L. D. BRUMIT, Assistant Auditor, Florida Power Corp., was educated in his native Tennessee and joined Corning Glass Works immediately upon finishing college. He later served with J. G. White Engineering Corp. in Pennsylvania and New York. In 1926 he became associated with Florida Power as chief accountant for two construction projects, subsequently becoming a member of the General Accounting Department. In his present post he supervises internal auditors and is responsible for preparation of Federal and state income tax returns. Active in the Red Cross and Boy Scouts of America, he was awarded the BSA Silver Beaver Award in 1949 and is a past exalted ruler of the St. Petersburg BPOE Lodge.

C. W. KELSEY

*Chairman* of the Plant Accounting and Records Committee

### Plant Accounting and Records Committee

The Plant Accounting and Records Committee, under the chairmanship of C. W. KELSEY, New York State Electric & Gas Corp., and Vice Chairmanship of F. W. ROSS, Pennsylvania Power & Light Co., has a number of projects under way for the coming year, three of which are being handled by subcommittees.

A subcommittee has been assigned to make a study of the various uses which are made of punched cards in the many phases of plant accounting and property records work. This study is a continuation of a long-term project on machine accounting as applied to property records. Another subcommittee is developing a report on field reporting manuals dealing with methods and procedures employed by various companies in obtaining the detailed information required from field forces for property records purposes. A third subcommittee is working on a survey and report of the numerous functions performed by plant accounting departments. It is expected that each of these subcommittees will present a report at the spring conference.

In addition, several papers are being prepared by committee members for presentation at the conference. One paper will describe a simplified age record of utility property. Another will deal with the use of engineers in property records work. There will also be two papers describing a specific phase of plant accounting procedure as handled by an individual company.

Joint chairmen have been appointed from the EEI and AGA Property Records Committee to arrange a half-day panel discussion of property records problems for the conference. A similar panel discussion at the last conference proved very successful.

Chairman C. W. KELSEY is Chief Plant Accountant in charge of all plant accounting and property record work for the New York State Electric and Gas Corp., the position he has held since 1941. His utility career began in 1923 when he joined the Associated Gas and Electric system. For the next few years he installed work order systems for several companies in the Associated System before becoming supervisor of construction accounting for New York State Elec-

tric and Gas and several affiliated companies in 1929.

### Taxation Accounting Committee

Under the chairmanship of S. J. SCHIML, JR., The Dayton Power and Light Co., and vice chairmanship of C. A. PALMGREN, JR., New Orleans Public Service Inc., the Taxation Accounting Committee has already entered upon its 1953-54 activities by holding a meeting with its counterpart AGA committee on October 1-2, 1953, in Washington, D. C. Approximately 75 members and guests attended the meeting which, in addition to papers and discussion, featured a luncheon address by R. C. Staebner, Head of the Engineering and Valuation Branch, Internal Revenue Service, whose subject was income tax depreciation (see p. 427).

Subcommittees have been appointed

S. J. SCHIML

*Chairman* of the Taxation Accounting Committee

on Proposed and Introduced Federal Tax Legislation; Taxation of Non-Cash Compensation (Fringe Benefits); Excess Profits Tax Section 722; and Accelerated Tax Depreciation.

The Committee has scheduled its winter meeting to be held at Hot Springs, Ark., on January 27-29, 1954. As usual, it is anticipated that the committee will be very busy during the entire year, particularly so since it is apparent that new tax legislation will be very much in the picture when Congress convenes in January, 1954.

Chairman S. J. SCHIML, JR., Comptroller of The Dayton Power and Light Co., joined the company in 1927 as a stenographer. He was subsequently engaged in various activities in the Treasurer's Division and in 1947 established and supervised the Taxes and Insurance Department. Three years later he was named assistant comptroller in charge of general accounting activities, the position he held until being elected comptroller in 1952. Mr. Schiml is a member of the Dayton Chapter of the National Association of Cost Accountants and the National Office Management Association. He has served with the Taxation Accounting Committees of both EEI and AGA for a number of years.

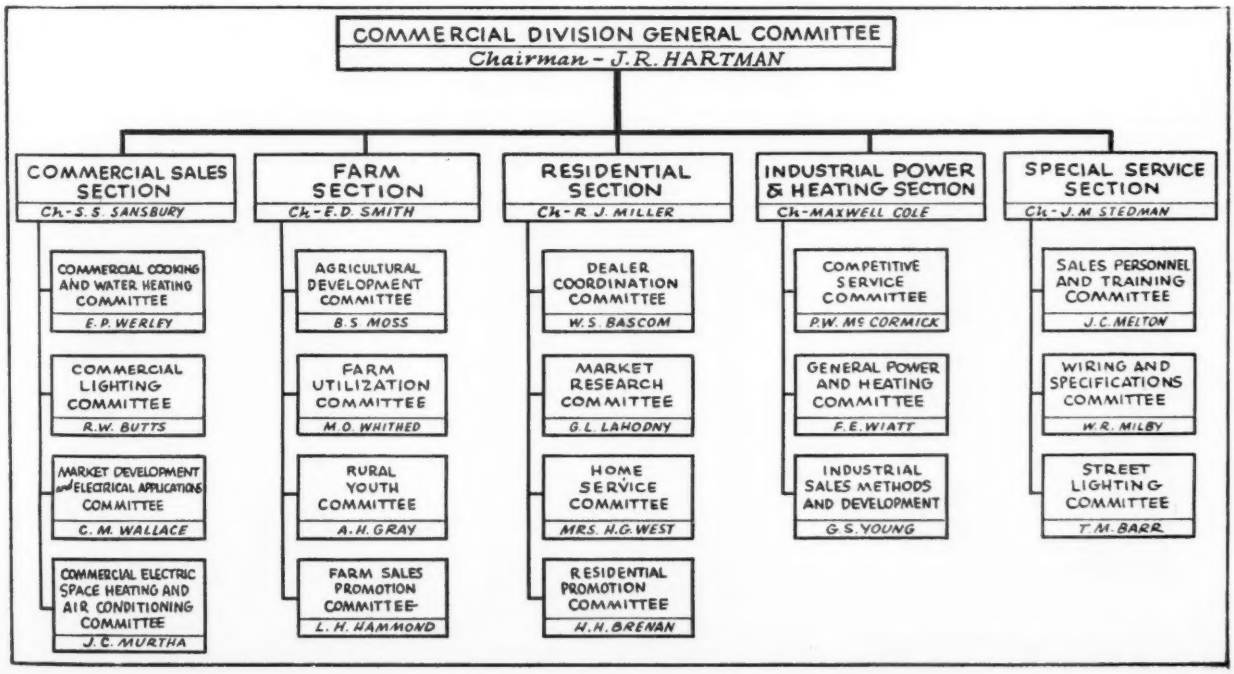
# *EEI Commercial Division Committees*

THE unparalleled expansion of electric company generating facilities in recent years promises a new era of electrical living, but never since the close of World War II have conditions indicated the need for more intensive sales activities to insure maximum use of the industry's steadily increasing capacity.

Underlying the industry's vast expansion is the necessity for enlarging energy sales through promotion of appliances and widespread adoption of new applications of electricity. One of the major problems confronting the industry is, therefore, the development of successful load-building programs.

Sales organizations are charged with the responsibility of seeing that plant capacity is utilized, no matter

## EEI Commercial Division Organization Chart



what the prevailing economic conditions. This demands alert and imaginative sales forces and calls attention to a second major concern of the industry, the recruitment and training of sales personnel.

To aid in the solution of these problems, the EEI Commercial Division Committees for 1953-54 have been streamlined to ready them for greater load-building activity and to emphasize sales training in their work. In the Residential Section, the former Electric Kitchen and Laundry, Electric Water Heater, Television, and Residential Lighting Committees have been merged into the new Residential Promotion Committee. In other organizational changes, a Commercial Electric Space Heating and Air Conditioning Committee has been created within the Commercial Sales Section; a Farm Sales Promotion Committee within the Farm Section; and an Industrial Sales Methods and Development Committee within the Industrial Power and Heating Section.

Shortages of sales personnel and mounting operating costs stress the need for low-cost sales techniques for reaching the mass market. These problems will also be among the considerations of the Commercial Division's 19 committees and over 300 committeemen in their preparation of new sales aids, market studies, and training material designed to assist the commercial forces of the industry.

### Commercial Division General Committee

The activities of the Commercial Division's five sections are coordinated by the Commercial Division General Committee, under the chairmanship

S. S. SANSBURY
*Chairman* of the Commercial Sales Section

J. R. HARTMAN
*Chairman* of the Commercial Division General Committee

of J. R. HARTMAN, The Cincinnati Gas & Electric Co. The responsibilities of the Commercial Sales, Farm, Residential, and Industrial Power and Heating Sections cover the major electrical markets, whereas the assignments of the Special Service Section encompass sales personnel and training, wiring and specifications, and street lighting.

Division activities and projects undertaken by the committees are planned and reviewed by the Commercial Division General Committee at meetings conducted twice a year by Mr. Hartman, to whom the section chairmen report.

Chairman J. R. HARTMAN, Vice President in Charge of Electric Sales for The Cincinnati Gas & Electric Co., became associated with CG&E in 1923 as a research engineer, transferring to the company's Electric Sales Department in 1926. Two years later he was made manager of the department, the position he held until being elected to his present post in 1946. He is also on the company's board of directors. A 1920 chemical engineering graduate of the University of Cincinnati, Mr. Hartman has been chairman of the EEI Industrial Power and Heating Section and regional vice president of the Illuminating Engineering Society. He is also a member of the Engineering Society of Cincinnati.

## COMMERCIAL SALES SECTION

The Commercial Sales Section, with S. S. SANSBURY, Union Electric Co. of Missouri, as chairman, consists of the Commercial Cooking and Water Heating Committee, Commercial Electric Space Heating and Air Conditioning Committee, Commercial Lighting Committee, and the Market Development and Electrical Applications Committee.

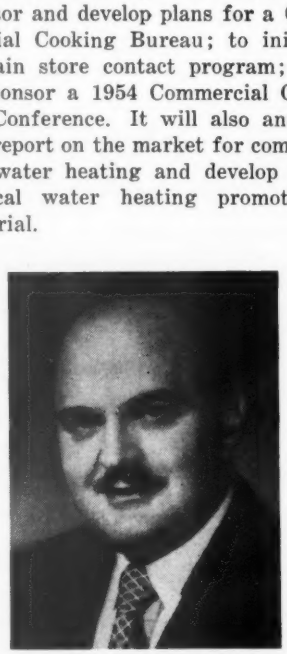
These committees develop sales and technical data; sponsor national meetings; and formulate and produce informational, promotional, and sales materials to aid in the development of commercial markets.

Chairman S. S. SANSBURY, Manager of the Development and Training Division, Union Electric Co. of Missouri, has been associated with the company since 1930. A graduate of the University of Alabama, he served with Union Electric in various capacities in the Sales Department, including positions as assistant industrial heating engineer, sales engineer in charge of commercial cooking development, and coordinator of Sales Department training and education programs. For three and one-half years during World War II he served as commander of an antiaircraft battery in the South Pacific. Mr. Sansbury is a member of the Engineer's Club of St. Louis, past chairman of a training committee of a Community Chest division, and has been active in several civic, charitable and business organizations in St. Louis. Prior to his present EEI committee appointment, he served as chairman of the Commercial Cooking Committee of the Institute from 1949 to 1952.

### Commercial Cooking and Water Heating Committee

Commercial water heating was added this year to the responsibilities of this committee which, under the chairmanship of E. P. WERLEY, Pennsylvania Power & Light Co., heretofore had been responsible only for commercial electric cooking.

The committee plans to continue publication of the newsletter, *Current Cooking;* to develop and publish 12 commercial cooking data sheets; to sponsor and develop plans for a Commercial Cooking Bureau; to initiate a chain store contact program; and to sponsor a 1954 Commercial Cooking Conference. It will also analyze and report on the market for commercial water heating and develop commerical water heating promotional material.



E. P. WERLEY
*Chairman* of the Commercial Cooking Committee

J. C. MURTHA

*Chairman* of the Commercial Electric Space Heating and Air Conditioning Committee

Chairman E. P. WERLEY is Manager of the Commercial Sales Department, Pennsylvania Power & Light Co., a position he assumed in 1947. He has been associated with PP&L since his graduation from Lehigh University with a B.S. degree in business administration in 1930. He joined the company as a sales assistant in Allentown, Pa., and transferred to Sunbury, Pa., a year later to become a salesman for gas home heating. In 1937 he left the company and served as a commander in the U. S. Navy in World War II. In 1945 he was reemployed by PP&L as sales representative, his post until being named to his present position. Mr. Werley is a member of the Illuminating Engineering Society, the Lehigh Valley Sales Executive Club, Kiwanis, and was vice chairman of the PEA Commercial Committee.

### Commercial Electric Space Heating and Air Conditioning Committee

The Commercial Electric Space Heating and Air Conditioning Committee has just been organized as part of the Commercial Sales Section. Its chairman is J. C. MURTHA of Consolidated Edison Co. of New York, Inc., and its functions, which are confined to the commercial market, include:

1. The collection and dissemination of information concerning electric space heating;
2. Collecting, developing, and making available to member companies promotional programs, including sales education tools and materials as demand develops;
3. Serving as liaison between member companies and equipment manufacturers to develop effective cooperation in matters of mutual interest.

The committee will also maintain liaison with other EEI committees to avoid duplication of effort.

Chairman J. C. MURTHA, Manager of the Sales Engineering Bureau, Consolidated Edison Co. of New York, Inc., is an electrical engineering graduate of Carnegie Institute of Technology. In his present position since 1946, he started his business career with Westinghouse Electric Corp., becoming field test engineer. He then joined the Fox Film Corp. as assistant chief electrical engineer, later moving to the Brooklyn Edison Co. as staff instructor in the educational bureau and to Consolidated Edison as commercial engineer. He served during World War II as administrator of civilian training for the Signal Corps and as general project manager for Sperry Gyroscope Co. Mr. Murtha is a licensed professional engineer in New York State and has lectured widely in the industry on work simplification.

### Commercial Lighting Committee

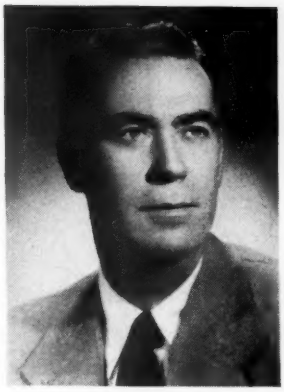
The purpose of the Commercial Lighting Committee, under the chairmanship of R. W. BUTTS of the Ohio Edison Co., is to assist member companies in development of the commercial lighting market. It studies progress and developments in new equipment and light sources and creates promotional materials and tools for the use of member companies.

The committee plans to complete work on a lighting sales organization manual, consider a sales promotion program suitable for a tie-in with a proposed industry commercial lighting job certification program, and study and review commercial lighting sales training programs. It plans preparation of a store window lighting sales manual and publication of a new bulletin on mass market commercial lighting sales programs.

Chairman R. W. BUTTS, General Supervisor of Commercial and Farm Sales, Ohio Edison Co., born and educated in Ohio, started his business career in 1923 with the Ohio Public Service Co. Before that company was merged into the Ohio Edison Co. in 1949, he had been director of commercial sales and home service. When the merger took place, he was appointed general supervisor of commercial sales, assuming his present duties in 1952. A recipient of the BSA Silver Beaver Award in 1948, he is past president of the Boy Scouts, past president of Kiwanis Club, and past chairman of the Elyria Chapter of the American Red Cross. He received the Curtiss Award for Lighting in 1937, has served on committees of the Better Light Better Sight Bureau, and is past chairman of the Cleveland Section of the Illuminating Engineering Society, of which he was also national membership chairman.

R. W. BUTTS

*Chairman* of the Commercial Lighting Committee



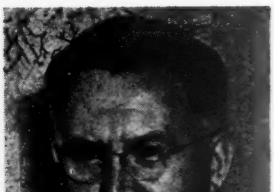
C. M. WALLACE, JR.

*Chairman* of the Market Development and Electrical Applications Committee

### Market Development and Electrical Applications Committee

The Market Development and Electrical Applications Committee, under the chairmanship of C. M. WALLACE, JR., Georgia Power Co., plans to complete two new sections of the handbook, *Application of Electric Equipment in Commercial Establishments*. It will publish six issues of the bulletin, *Commercial Cues*, prepare a report on a study of commercial sales plans and organizations, and publish a portfolio of commercial sales promotional plans.

A 1928 graduate of Georgia Institute of Technology, Chairman C. M. WALLACE, JR., Vice President in Charge of Sales, Georgia Power Co., has been with the company since graduation except for the period from 1942 to 1946 when he served as a captain with the Army Air Corps. He started with Georgia Power as a junior engineer, becoming power sales engineer in 1930. During later years he served as lighting engineer and division sales supervisor. In 1950 he was advanced to assistant to the vice president in charge of operations, being appointed sales manager and assistant to the vice president in charge of sales in 1951, and was elected to his present position in August of this year. Mr. Wallace is a member of both the Illuminating Engineering Society and the Georgia Engineering Society.



E. D. SMITH
*Chairman* of the Farm Section

## FARM SECTION

The Farm Section, under the chairmanship of E. D. SMITH, The Dayton Power and Light Co., is composed of the Agricultural Development Committee, the newly formed Farm Sales Promotion Committee, the Farm Utilization Committee, and the Rural Youth Committee.

Within the scope of their respective fields of operation, the committees of the Farm Section work for the general improvement of rural and farm living standards: in utilization, through the most efficient application of electricity to farm work; in agricultural development, through better use and care of land, plants, and livestock; in rural youth, through education, recreation, and work; and in sales promotion, through more effective methods of informing our farm customers of the true value of electricity as applied to their work as well as their leisure.

The section publishes *Farm Electrification* magazine, which reports how power suppliers have helped farmers solve production problems through the use of electricity and discusses related items of mutual interest to farm service personnel, county agricultural agents, and vocational agricultural teachers. The section also collects and distributes other pertinent information related to farm electrification.

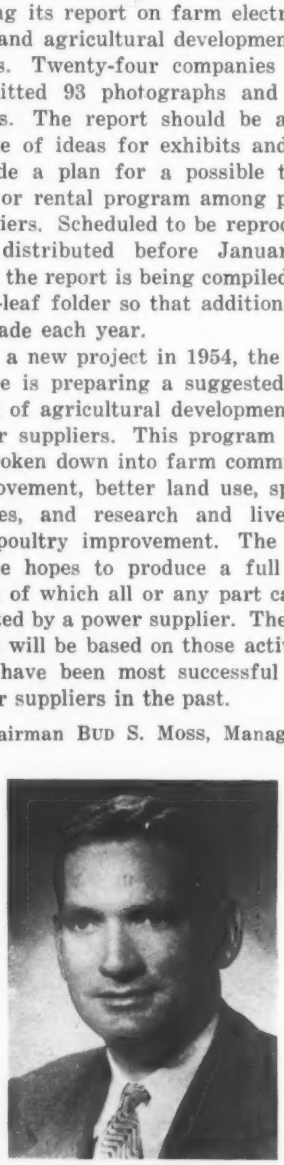
Born and educated in Ohio, Chairman E. D. SMITH, Supervisor of Rural Development, The Dayton Power and Light Co., graduated from Ohio State University in 1926. Joining DP&L as district lighting representative in 1928, he was transferred to the company's Preble District as a rural representative in 1930, becoming assistant supervisor of the Rural Department in 1934. He was promoted to his present position in 1945. Mr. Smith is vice chairman of the Executive Committee of the Ohio Farm Electrification Council, a member of the Joint Planning Committee of Electric Water Systems Council, the Farm Sales Committee of the Ohio Electric Utility Institute, and the American Society of Agricultural Engineers. Before assuming his present EEI committee chairmanship, Mr. Smith had been a member of the EEI Farm Utilization Committee for six years, having served as its chairman for the last two years.

### Agricultural Development Committee

The Agricultural Development Committee under the chairmanship of BUD S. MOSS, Georgia Power Co., is completing its report on farm electrification and agricultural development exhibits. Twenty-four companies have submitted 93 photographs and data sheets. The report should be a fine source of ideas for exhibits and will include a plan for a possible trade, sale, or rental program among power suppliers. Scheduled to be reproduced and distributed before January 1, 1954, the report is being compiled in a loose-leaf folder so that additions can be made each year.

As a new project in 1954, the committee is preparing a suggested program of agricultural development for power suppliers. This program is to be broken down into farm community improvement, better land use, special studies, and research and livestock and poultry improvement. The committee hopes to produce a full program of which all or any part can be adopted by a power supplier. The program will be based on those activities that have been most successful with power suppliers in the past.

Chairman BUD S. MOSS, Manager of the Rural Division, Georgia Power Co., is responsible for the company's rural electrification promotion as well as general agricultural activities. A graduate of University of Georgia, he joined Georgia Power in 1946 as a rural engineer, becoming agricultural agent in 1948. He has been a member of the EEI Agricultural Development Committee for five years, two years of which he has been chairman. Mr. Moss is also an active member of several other organizations, among them the American Society of Agricultural Engineers and the Southeastern Electric Exchange.



BUD S. MOSS
*Chairman* of the Agricultural Development Committee

LYMAN H. HAMMOND
*Chairman* of the Farm Sales Promotion Committee

### Farm Sales Promotion Committee

The Farm Sales Promotion Committee, newly formed under the chairmanship of LYMAN H. HAMMOND, New York State Electric & Gas Corp., got off to a flying start by making plans to produce three nationwide farm sales promotion programs during 1954. The programs will cover farm lighting, farm electric water heating, and farm ventilation. The committee proposes to study effective promotions previously conducted in these fields and hopes to pick the best parts from these promotions, add new ideas, produce new promotional pieces, and come up with a package from which a power supplier may select some or all features for his own use.

This first year of committee operation will be devoted to farm electrical applications with national appeal. Later, special promotions will be worked out for certain areas of the country to promote those applications peculiar to the farming in that area.

Chairman LYMAN H. HAMMOND, Manager of Domestic and Farm Sales, New York State Electric & Gas Corp., is a 1923 graduate of Rensselaer Polytechnic Institute. His early business career was spent in the employ of James B. Sipe & Co., Fort Wayne Engineering & Manufacturing Co., and Westinghouse Elec-

tric Corp. In 1935 he joined New York State Electric & Gas as rural representative and served successively as supervisor of rural development and farm service manager until assuming his present duties in 1951. Active in agricultural and civic groups, Mr. Hammond is a member of the American Society of Agricultural Engineers; past chairman of the Operating Committee, New York Farm Electrification Council of the New York State College of Agriculture at Cornell; a member of the Advisory Group to the Rural Engineering Department, State University of New York Agricultural and Technical Institute; a member of the board of directors of the Broome County Farm Bureau, Home Bureau, and 4-H Clubs Association; past chairman of the Agricultural Committee of the Binghamton Chamber of Commerce; and a member of the Broome County Land Use Committee.

### Farm Utilization Committee

The Farm Utilization Committee, under the chairmanship of M. O. WHITHED, Atlantic City Electric Co., is showing progress on the *Agricultural Engineering Handbook.* This project, started last year, involves the very great job of collecting data, tables, etc., and arranging them in the proper order. The handbook is divided into sections, some of which are to be completed next year.

The committee is responsible for keeping the *Farm Electrification Manual* up-to-date and is now completing a section on irrigation, which should be printed before the end of 1953. A section on heat applications is almost ready for publication, and a section on conveyors on the farm will soon follow. A new section on plant propagation will be prepared in 1954.

Chairman MARDIS O. WHITHED, Rural Supervisor, Atlantic City Electric Co., graduated from Powers Institute in 1929 and Bliss Electrical School in 1931. After working for four years as foreman of a 400-acre dairy and sheep farm, he joined Atlantic City Electric in 1935 as a groundman, transferring later to meter testing and then to the Commercial Department. He became a member of the Rural Department upon its formation in 1937 and has since spent 15 years in contacting farmers and developing rural electrification in Southern New Jersey. He was appointed to his present position in 1951. Mr. Whithed, an associate member of the New Jersey Society of Professional Engineers, has been active in various electrical and agricultural organizations. He has served as chairman of the Farm Wiring Committee of the North Atlantic Section of the American Society of Agricultural Engineers, is a member of the New Jersey Farm Electrification Council, and has been a member of the EEI Farm Utilization Committee since 1949.

M. O. WHITHED
*Chairman* of the Farm Utilization Committee

A. H. GRAY, JR.
*Chairman* of the Rural Youth Committee

### Rural Youth Committee

The Rural Youth Committee, under the chairmanship of A. H. GRAY, JR., Southwestern Gas and Electric Co., is completing its loose-leaf book on *Electrical Equipment for Rural Youth,* which should be in the hands of the printer by the first of the year.

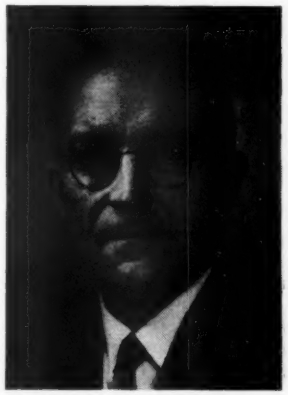
The committee is undertaking the task of preparing a course of study in farm electrification for Vo-Ag students. This text will be prepared in cooperation with the U. S. Department of Education, and it is hoped that it will fill an important need for uniform plan of study on the subject throughout the country.

Chairman A. H. GRAY, JR., Head of the Rural Development Department, Southwestern Gas and Electric Co., had experience in sales work and as vice president and general manager of an automobile accessory business before entering the electric industry as a merchandise salesman for Louisiana Power & Light Co. After serving the Louisiana utility for several years, he became associated with Sears Roebuck and Co., later joining Southwestern Gas and Electric as lighting engineer, rising to his present duties in 1946. Mr. Gray is vice president of the Southwest Section of the American Society of Agricultural Engineers and is chairman of the Texas Farm Youth Committee, a subcommittee of the Texas Farm Electrification Committee. He is also a member of the Shreveport Chamber of Commerce Agricultural Committee; a member and past chairman of the Louisiana Utilities Vocational Agricultural Committee; and a member of the Louisiana Forestry Association, Louisiana Agricultural Engineers Association, Agricultural Association, Inc., and the Rural Committee of the Missouri Valley Electric Association.

## INDUSTRIAL POWER AND HEATING SECTION

The Industrial Power and Heating Section, under Chairman MAXWELL COLE, Philadelphia Electric Co., has been reorganized in anticipation of business conditions calling for intensified market development and sales activities. Sales training methods for industrial power salesmen, contractors, distributors, and other sales allies will be studied and developed. Markets for increased power sales, particularly those which can be made most productive in the face of adverse conditions and which offer the greatest attraction from a rate-of-return aspect, will be investigated. Available sales tools for developing these markets will be reviewed and new ones which may be needed created. Consideration will also be given to sales methods, particularly mass selling methods offering opportunities for reducing sales costs.

The section cooperates closely with the Industrial Electrification Council, in which several of its members are participants, in the expansion of its current program aimed to develop a greater appreciation of the advantages of industrial electric heating by all



MAXWELL COLE
*Chairman* of the Industrial Power and Heating Section

of American industry, as well as by members of the electric industry. The section will consider a sales follow-up to this educational program.

In addition to greatly intensified effort in the sales field, the section will continue to follow and counteract competitive activities, keeping its members informed of new developments in the uses of electricity for industrial processes and operations, and providing a vehicle for the exchange of information on all phases of the industrial sales field.

Work on the *Power Sales Manual*, which has proven so valuable as a training manual for new industrial power salesmen as well as a reference manual for more experienced men, will be continued. New chapters will be added and old ones revised.

A graduate of the United States Naval Academy, Chairman MAXWELL COLE is Manager of the Market Studies and Service Division of the Philadelphia Electric Co. Since joining the company in 1924, he has served in various capacities, including that of supervisor of the industrial service section. Mr. Cole has been a member of the EEI Industrial Power and Heating Section for 14 years and is also a member of the Illuminating Engineering Society.

### Competitive Service Committee

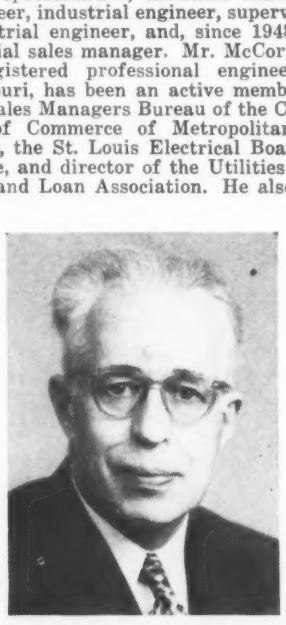
The Competitive Service Committee, of which PAUL W. MCCORMICK of the Union Electric Co. of Missouri is chairman, will study and distribute information on the competitive situation in the field of power generation. It operates through the activities of two subcommittees.

The Diesel and Other Competition Subcommittee, with PAUL W. EMLER of the American Gas and Electric Service Corp. as chairman, is reviewing those parts of *Power Sales Manual* Chapter 16, on "Competition" which are devoted to internal combustion engines. It will continue to gather information on competitive installations in fields other than the industrial field, and will report on developments dealing with automatic diesel operation, gas engines, and dual-fuel engines for sewage disposal, gas turbines, etc. It will also continue to gather information on the activities in the oil-gas pipe-line pumping fields.

The Steam Competition Subcommittee, with TOM D. HOSKINS, Louisiana Power & Light Co., as chairman, is reviewing that portion of *Power Sales Manual* Chapter 16 which deals with steam competition. It will keep a running record of competitive situations and will develop and distribute information pertaining to outstanding changes in manufacturing processes involving changes in steam requirements. It will collect and disseminate information on activities and developments of manufacturers of competitive steam power generating equipment.

PAUL W. MCCORMICK
*Chairman* of the Competitive Service Committee

Born, raised and educated in St. Louis, Mo., Chairman PAUL W. MCCORMICK, Industrial Sales Manager, Union Electric Co. of Missouri, received a B.S. degree in electical engineering from the University of Missouri in 1923. He joined Union Electric as a student engineer and later was assigned to the Sales Department, which he has served as commercial representative, assistant industrial engineer, industrial engineer, supervising industrial engineer, and, since 1948, industrial sales manager. Mr. McCormick, a registered professional engineer in Missouri, has been an active member of the Sales Managers Bureau of the Chamber of Commerce of Metropolitan St. Louis, the St. Louis Electrical Board of Trade, and director of the Utilities Savings and Loan Association. He also has been active in the EEI Industrial Power and Heating Section since 1948, having held subcommittee chairmanships before assignment to his present duties.



FRANK E. WIATT
*Chairman* of the General Power and Heating Committee

### General Power and Heating Committee

The function of the General Power and Heating Committee, under the chairmanship of FRANK E. WIATT, The Cincinnati Gas & Electric Co., is to study and disseminate information on industrial power uses; follow and report on new power-using equipment within the industry; report on customer electrical problems; and study industrial markets for opportunities to increase kilowatthour sales. It operates through three subcommittees.

The Electric Heating Subcommittee, with R. W. WYMAN, The Cleveland Electric Illuminating Co., as chairman, will study and distribute information on developments and applications of infrared, induction, dielectric, resistance heating and electric metal melting. It will assist in the work of the Industrial Electrification Council and the National Industrial Electric Heating Conference, to be held in Cincinnati, Ohio, in January, 1954, and will continue revision of the chapter devoted to electric heating applications in the *Power Sales Manual*.

The Applications and Equipment Subcommittee, under the chairmanship of S. A. MOORE, Public Service Electric and Gas Co., will collect and distribute information on new and unusual applications of electricity in industry and new power-using equipment. It will complete revision of Chapter 7 of the *Power Sales Manual* on "Air Conditioning and Ventilation."

The Industrial Lighting Subcommittee, with its chairman, R. W. BASCHNAGEL, Rochester Gas and Electric Co., will contribute to various promotional programs in the field of industrial lighting. It will continue participation in industrial lighting conferences under the auspices of lamp manufacturers for the benefit of industrial power salesmen of member companies. As a further activity, the subcommittee will assist, where possible, in the development and promotion of plans for the celebration of Light's Diamond Jubilee in 1954.

Chairman FRANK E. WIATT, Assistant Manager of the Electric Sales Department, The Cincinnati Gas & Electric Co., began his career with the company in

G. S. YOUNG

*Chairman* of the Industrial Sales Methods and Development Committee

Chairman G. S. YOUNG is Manager of Power and Lighting Sales for Kansas City Power & Light Co. A graduate of the University of Missouri, he has been with the company for 26 years, having served as industrial engineer and assistant manager of power sales before being named to his present position. He is a member of the Engineers' Club of Kansas City, the Electric Association of Kansas City, and the Missouri Valley Electric Association.

1920. For ten years he was engaged in the design and construction of major substations and then, in 1930, transferred to the Electric Sales Department, working for 18 years as assistant supervisor of the Power Sales Division. He was promoted to his present position in 1948. A member of the Engineering Society of Cincinnati, Mr. Wiatt is past chairman of the Cincinnati Section, AIEE, and chairman of the Industrial Sales Committee of the Ohio Electric Utility Institute. He held subcommittee chairmanships in the EEI Industrial Power and Heating Section for the past four years before receiving his present assignment.

### Industrial Sales Methods and Development Committee

By pooling information and ideas of the section members, the newly formed Industrial Sales Methods and Development Committee, under Chairman G. S. YOUNG, Kansas City Power & Light Co., will accumulate, develop, and disseminate sales tools, training methods, techniques, and programs for the promotion and sale of electric company service to industrial customers.

The committee's initial activities will include:

1. Investigation of appropriate sales training courses;
2. Recommendations for coordinating existing sales aids at regular sales meetings;
3. Suggestions for mass selling techniques and procedures;
4. Suggestions for developing effective cooperation from sales allies;
5. Recommendations for helping existing customers improve and diversify production; and,
6. Analysis of markets and load characteristics thereof for promotion of selective selling.

## RESIDENTIAL SECTION

The Residential Section, under the chairmanship of R. J. MILLER of The Cleveland Electric Illuminating Co., is made up of four committees whose activities include the collection of market research data, dissemination of such information, and preparation of educational and residential promotion material for electric company use. Committees of the section work closely with NEMA and PUAA and allied industry associations to coordinate better the over-all sales promotion plans of the entire electric industry.

Recent reorganization of the section has made the committees more flexible and will speed development of promotional aids for utility use. To assist electric companies, manufacturers, distributors, and dealers in planning their sales activities, the committees have established at least six months' "lead time" in announcing their promotional programs.

Recent and forthcoming promotional materials are of the low-cost, mass-approach variety. Such material is basic and easily adaptable to electric company use at the local level. In addition, educational material for classroom use and distribution to consumers is developed by certain of the committees. Special reports are also prepared and issued to keep electric company sales management informed regarding a wide range of residential activities.

R. J. MILLER

*Chairman* of the Residential Section

A graduate of John Carroll University, Chairman R. J. MILLER, Manager of the Sales Promotion Department, The Cleveland Electric Illuminating Co., began his career with the company in 1936, serving as residential field representative, residential sales supervisor, assistant manager of residential sales, and assistant to the general sales manager before assuming his present duties. A member of the board of directors and vice president of the Electrical League of Cleveland, Mr. Miller is also vice chairman of the EEI Commercial Division General Committee and has served as chairman of the EEI Sales Personnel and Training Committee.

W. S. BASCOM

*Chairman* of the Dealer Coordination Committee

### Dealer Coordination Committee

Sponsorship of dealer-utility workshops, which have been successfully conducted on a regional basis for the past three years, will continue to be the number one project of the Dealer Coordination Committee, under the chairmanship of W. S. BASCOM of the Union Electric Co. of Missouri.

All electric companies in each region in which workshops are held are invited to share in this activity by sending their residential supervisory personnel. Workshops are built around formal presentations of various promotional programs but are primarily devoted to organized discussion of the activity under consideration. The committee has been working on a plan whereby a resume of some of the material presented at each workshop will be released in printed form for the information of others in the electric industry.

The campaign calendar developed by the committee has been adopted by major appliance manufacturers

and will do much to further the coordination of cooperative efforts throughout the industry. The calendar will be kept up-to-date and in the future might be expanded to include additional appliances as electric company interest in the promotional possibilities of other products increases.

Members of the committee maintain liaison with NARDA by attending national meetings of the group and through personal contacts and correspondence.

Chairman W. S. BASCOM is Director of the Trade Cooperation Section, Union Electric Co. of Missouri. A native of St. Louis, Mo., he began his career with Union Electric as a house-to-house appliance salesman in 1928. Prior to attaining his present position he served the company as appliance crew supervisor, commercial sales representative, and branch store manager. He is a member of the St. Louis Electrical Board of Trade and a past president of the St. Louis Housewares Club. Mr. Bascom has been a member of the EEI Dealer Coordination Committee for the past four years.

### Home Service Committee

The Home Service Committee, under the leadership of Mrs. HARRIET G. WEST, Indianapolis Power & Light Co., is engaged in a wide range of activities which includes educational and promotional projects that aid electric company load-building programs.

The committee will continue to work closely with the Health Home Council by gathering information for the Council and by furthering the Health Home idea in the field of home service work.

Regional Home Service Conferences will be sponsored to give home service directors an opportunity to discuss home service activities in load-building programs and to exchange ideas regarding the efficient and effective operation of home service departments. The Home Service Exchange, a digest of home service activities, will continue to appear on a quarterly publishing schedule.

A new freezer-use booklet will be prepared by the committee and several other booklets, which have had wide usage, will be reviewed, revised, and reprinted.

MRS. HARRIET G. WEST
*Chairman* of the Home Service Committee

A native of Colorado, Chairman HARRIET G. WEST, Home Service Director, Indianapolis Power & Light Co., received an A.B. degree from the College of Emporia and an M.S. degree from the University of Wisconsin. She joined Indianapolis Power & Light in 1945 in her present capacity, having previously served as a nigh school home economics teacher in Illinois and Wisconsin and as division home service director and home service director for Oklahoma Gas & Electric Co. Mrs. West is active in trade, professional, and community groups, being a member and past chairman of Electric League Women and of Home Economics in Business; a member of the board of directors of the Women's Council, Indianapolis Chamber of Commerce; and a member and past president of Pilot International, Indianapolis Club. She has served on the EEI Home Service Committee for the past five years.

GEORGE L. LAHODNY
*Chairman* of the Market Research Committee

### Market Research Committee

The chairman of the newly organized Market Research Committee is GEORGE L. LAHODNY, The Detroit Edison Co. The committee is charged with the responsibility of collecting, coordinating, and disseminating market data which will aid sales management in planning its residential promotions and in evaluating the results of such activities.

The amount of original research will be limited and most of the committee's work will deal with the coordination of material already available from other sources.

The committee will work closely with trade organizations, publications, and other allied sources in the development of such data.

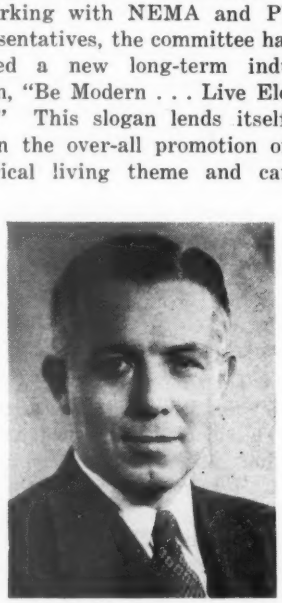
A long-term objective is the development of a common reporting system whereby electric companies and other segments of the industry can more accurately plan and measure results.

With The Detroit-Edison Co. since 1940, Chairman GEORGE L. LAHODNY is presently Assistant to the Vice President. He attended Miami University and Western Reserve University, acquiring a B.S. degree. Upon joining Detroit Edison, he was staff supervisor, in which position he served until being named to his present position. Mr. Lahodny, an active member of the American Marketing Association and the American Association of Public Opinion Research, was a member and past chairman of the no longer existent EEI Television Committee before receiving his new assignment.

### Residential Promotion Committee

The Residential Promotion Committee, with H. H. BRENAN, Pennsylvania Power & Light Co., as chairman, has taken on the duties of the former Electric Kitchen and Laundry Committee, Electric Water Heating Committee, Television Committee, and Residential Lighting Committee. The scope of the new committee permits it to handle the work of these groups and also to undertake programs not formerly included in the scope of other Residential Section Committees.

Working with NEMA and PUAA representatives, the committee has developed a new long-term industry slogan, "Be Modern . . . Live Electrically." This slogan lends itself for use in the over-all promotion of the electrical living theme and can be



H. H. BRENAN
*Chairman*, Electric Kitchen and Laundry Committee

easily adapted for use in individual product campaigns.

To gain the advantage of pre-action planning, the committee has already completed detailed plans for five low-cost product campaigns to be conducted next year. These campaigns are built around ranges, dryers, freezers, and water heaters. During the current committee year the committee will develop the basic plans for the 1955 program so that plans can be presented to the industry with plenty of "lead time."

Much work is being done on the development of a basic mass-approach portable lamp promotion for adoption by all segments of the residential lighting industry. Committee plans call for the completion and inauguration of this program prior to the close of the committee year.

Chairman H. H. BRENAN, Manager of the Residential Sales Department, Pennsylvania Power & Light Co., is a 1925 engineering administration graduate of the Massachusetts Institute of Technology. Immediately following his graduation, he entered the employ of the Equitable Gas Co. of Pittsburgh for three years and then accepted the newly created position of industrial gas engineer with PP&L. In 1934 he was transferred to the Residential Sales Department as sales specialist of residential electric and gas applications. Six years later he was promoted to sales promotion supervisor and to his present position in 1944. An EEI Electric Kitchen and Laundry Committee member for six years before receiving his present EEI assignment, Mr. Brenan is also a member of the PEA Residential Committee.

## SPECIAL SERVICE SECTION

The Special Service Section, under the chairmanship of J. M. STEDMAN, Pennsylvania Power & Light Co., includes the Wiring and Specifications Committee, the Sales Personnel and Training Committee, both previously assigned to this section, and the Street Lighting Committee, transfered this year from the Commercial Sales Section. The first two of these committees serve as aids to each of the other sections of the Commercial Division in preparing reports, sales training, and technical data as required and requested by committees in other sections.

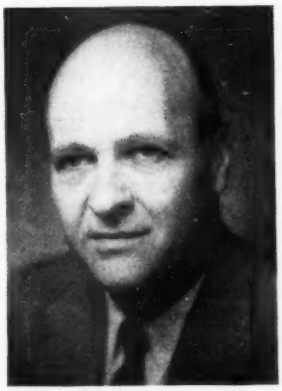
Chairman J. M. STEDMAN has been General Sales Manager of the Pennsylvania Power & Light Co. since 1946. A graduate of the University of Michigan with B.A. and B.B.A. degrees, he first worked for the Burroughs Adding Machine Co. and the Westinghouse Electric Corp. in various sales and managerial positions. He joined PP&L in 1932 as

J. M. STEDMAN
*Chairman* of the
Special Service Section

sales promotion manager, later becoming residential sales manager, his position until assuming his present post. Author of articles for trade and business magazines, and a contributor to the *Encyclopedia Brittanica*, he was co-author of *Sixty Great Sales Stories by Sixty Great Salesmen*, a business book best-seller. Mr. Stedman has been chairman of various EEI committees and the Better Light Better Sight Home Lighting Committee. He is also past chairman of the Lehigh Chapter Red Cross War Fund Drives, and past vice chairman of the Publications Committee of the Illuminating Engineering Society.

### Sales Personnel and Training Committee

Under the chairmanship of J. C. MELTON, Potomac Electric Power Co., the Sales Personnel and Training Committee will revise a folder successfully used by member companies to acquaint high school and early college girls with the attractiveness of home service work as a profession. In addition, a new folder describing opportunities available in appliance selling will be prepared and made available for distribution to high school and vocational class students by electric companies on their own or dealers' behalf.



J. C. MELTON
*Chairman*, Sales Personnel
and Training Committee

Because of increased interest in sales training among electric companies and other groups in the electrical industry, the committee will engage in additional promotion of the basic and advanced sales training courses so successfully used by many member companies with their own sales organizations and those of dealers, distributors, and other sales allies in their service areas. Revamped manuals will be planned to adapt the basic selling course more directly to industrial sales at the request of the Industrial Power and Heating Section.

A native of Virginia, Chairman J. C. MELTON, Residential Division Manager, Potomac Electric Power Co., majored in business administration at Washington and Lee University. Following service with Goodyear Rubber Co., he joined Pepco in 1931. Since that time, he has been continuously employed in the company's Sales Promotion Division, except during World War II when he was assigned to WPB. He was appointed general promotional manager in 1949 and named to his present post early this year. Mr. Melton is an officer of Reciprocity International, Washington Section; a member of AFAM; and a past member of the IES Capital Section, serving on the Board of Managers. He also served for three years as a member of the EEI Market Development Committee.

### Street Lighting Committee

Under Chairman T. M. BARR, Central Hudson Gas & Electric Co., the Street Lighting Committee will continue analysis of the current street lighting practices carried out by EEI member companies throughout the nation and will coordinate and report information gained from these analyses to the companies. In this work the committee will cooperate with the EEI Transmission and Distribution Committee and the NEMA Standardization Section to effect, where possible, better standardization of equipment. The committee will take interest in the exchange of information and dissemination of materials for the use of member company personnel in educating interested parties in good street lighting practices.

A native of upstate New York, Chairman TAYLOR M. BARR, Staff Lighting Engineer, Central Hudson Gas & Electric Corp., has been with the company since 1923. He was educated in Pennsylvania and Ohio and, after attending Westminster College, enrolled in General Electric Co.'s Student Engineering Test Depart-

T. M. BARR

*Chairman* of the Street Lighting Committee

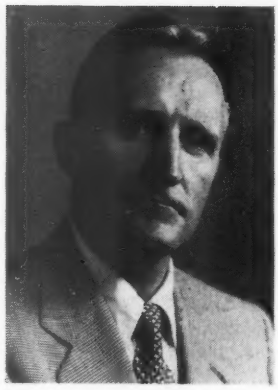
ment. From there he was assigned to the General Electric Illuminating Engineering Laboratory at Schenectady, N. Y. He joined Central Hudson in 1923 and has devoted his activities during the past 30 years to field and staff lighting work. A designer of several types of street and interior lighting equipment now in the market, Mr. Barr's interest in new lighting techniques has resulted in several trade journal articles. He is a member of the Illuminating Engineering Society and has been active in local civic organizations.

### Wiring and Specifications Committee

Under the chairmanship of W. R. MILBY of The Detroit Edison Co., the Wiring and Specifications Committee, in conjunction with the National Adequate Wiring Bureau, has revitalized preparation of materials for use by EEI member companies to satisfy the need for increased promotion of adequate wiring, particularly in commercial, residential, and farm installations.

Among these materials will be training films or slides for visual instruction of company personnel and a manual concerned with rewiring of commercial premises, range and water heater installations, and multiple service entrance equipment. A report including major changes in the 1953 National Electrical Code, along with comments on the effects of these changes on wiring costs, will also be released for distribution to electric companies and contractors.

A 1934 graduate of the University of Detroit with a B.E.E. degree, Chairman WILLIAM R. MILBY, Assistant Superintendent of the Customer Service Division,



W. R. MILBY

*Chairman* of the Wiring and Specifications Committee

The Detroit Edison Co., has been with the company since 1926 when he was employed as a meter installer. In 1934 he was promoted to wiring installation inspector, becoming engineer on special assignments two years later. He served with the U. S. Navy for 42 months and rejoined Detroit Edison in 1947 as assistant to the superintendent of the Customer Service Division, assuming his present duties in 1951. Mr. Milby is a member of the Michigan Chapter, Western Section of IAEI, Engineering Society of Detroit, NAWB, and AIEE.

## Wanted: Fair Play

(*Continued from page* 406)

Clearly, there cannot be important encouragement to private capital until the unfair tax and other discriminations are removed by Congress.

Another indication that the government may reduce its competitive business operations is seen in the decision to sell the Inland Waterways Corp. This government enterprise operated barge lines on the Mississippi and tributaries and on several rivers in southeastern states. On July 24, 1953, these government holdings were sold to the newly-organized Federal Waterway Corp., a private business, for $9,000,000. From 1939 to 1952, the government corporation piled up losses totaling nearly $10,000,000, losing money in 12 of the 14 years, and paid no taxes to the government.

A further indication is that on July 30, 1953, Congress passed the so-called Shafer Act creating a three-man commission to negotiate sales of the Federal government's synthetic rubber plants and to submit to Congress by January 31, 1955, a full report on all sales contracts negotiated along with their recommendations, with the right reserved to Congress to have 60 days in which to disapprove these recommendations. The synthetic rubber industry was developed by the government during World War II at a cost of $700,000,000. Some facilities were sold after the war, but 28 plants, costing about $525,000,000, remain in government hands.

In July, 1953, legislation was also enacted setting up a new bi-partisan commission of 12 men to make recommendations looking to the reorganization of the executive branch of the Federal government by (1) abolishing unnecessary government functions, (2) reorganizing regulatory agencies, and (3) recommending ways to eliminate inefficiencies arising from interdepartmental relations. Such recommendations could include doing away with government corporations found to be competing unfairly with private business or abolishing functions that could best be exercised by states and municipalities.

In conclusion, these problems of government in business and the preservation of our system of free enterprise must in the final analysis be adjudicated in the court of public opinion. The solution will be made easier and will come sooner when the public is fully advised of the problems and the inequities that exist and how the public will be benefited by the fair and proper solution or elimination of these problems.

Finally, let us take to heart these words of Thomas Jefferson: "The best government is that which governs least," and who said in his first inaugural address:

> A wise and frugal government, which shall restrain men from injuring one another, which shall leave them otherwise free to regulate their own pursuits of industry and improvement, and shall not take from the mouth of labor the bread it has earned—this is the sum of good government.

# Utility Viewpoint on Uniform Inspection

**M. E. Skinner**

*Vice President, Union Electric Company of Missouri*

An address before the International Association of Electrical Inspectors Silver Anniversary Convention, Chicago, Ill., September 22, 1953

I FIRST want to thank the program committee of this Silver Anniversary Convention for including me as a speaker and explain why I feel so indebted to it. One reason would, of course, be the honor of representing the electric companies before this most important segment of our electrical industry.

A more selfish reason is that in preparing myself I have had to complete and fill out one component of my business education that I now realize has heretofore been inadequate. I have, of course, been aware of the existence of this organization ever since it was formed. Further, my awareness of some of the problems with which it deals even precedes the formal organization of the International Association of Electrical Inspectors. However, not until I received the invitation to speak here had I taken the trouble to find out in some detail about the scope of your activities as an organization.

It led me to search out the stated objectives of your organization:

To cooperate in the formulation of standards for the safe installation and use of electrical materials, devices, and appliances;

To promote the uniform understanding and application of the National Electrical Code and other electrical codes;

To secure and promote uniform administrative ordinances and inspection methods;

To collect and disseminate information relative to the safe use of electricity;

To represent the electrical inspectors in all matters which are dealt with nationally and internationally by the electrical industry;

To cooperate with other national and international organizations in furthering the development of the electrical industry; and

To promote closer cooperation between inspectors, inspection departments, the electrical industry, and the public.

Rereading those objectives made me realize how intimately the interests of the inspectors and utility operators are joined and how closely in harmony are their objectives. But, there is little point in my discussing your business that you already know so well. My purpose here is to discuss the *utility* viewpoint on uniform inspection.

To be sure we are on common ground in thinking about these matters, let me state *our* objectives as utility operators. One utility company puts it like this:

> We are a business enterprise—dependent for success on the high quality and fair price of our service; on the skill, courtesy, and loyalty of our employees; on the confidence of our investors; and on the ability of our management to forecast and provide for the steadily increasing electric power requirements of our area.
>
> In the conduct of our business it is our policy to render service of the highest quality to our customers—promptly, courteously, and efficiently—at prices consistent with a policy of paying fair wages and affording job satisfaction and security to our employees; providing modern facilities for our customers' expanding needs for electric service; and paying a fair return to our investors who have provided the funds to make such service possible.
>
> As a private enterprise entrusted with an essential public service, we recognize our civic responsibility in the communities we serve. We shall strive to advance the growth and welfare of these communities and shall participate in civic activities which fulfill that goal . . . for we believe this is both good citizenship and good business.

I read that from a copy of the annual report of my own company, the Union Electric Co. of Missouri, but I know that many other companies subscribe to that version because many have used the identical phraseology as their statement of objectives.

In carrying out those objectives, the paramount responsibility of all companies must be to the public as users of our service, for if we fail in that we will have no employees or investors to consider.

In distributing electricity, we are dealing with an extremely complex network of wires and devices which must function in a completely coordinate fashion all the way from the point of origin of the energy at the generating plant to the point of use on the customer's premises. That coordinate functioning must be accomplished despite the fact that the ownership and responsibility changes at the meter and that the design, manufacture, installation, inspection, operation, and maintenance of that coordinate system must be the work of many hands activated by divergent motives. Considering its complexity, the wonder is that it works at all. American systems for distributing electricity, however, daily demonstrate a reliability of performance that equals or excels any other system for the distribution of goods or services in the world.

Since electric service is so vital to the user and is so complex and highly technical, all concerned with the supply of electricity have a serious responsibility to the public. In some instances, as with the operating electric utility company given the right to occupy public property with its facilities, this responsibility is recognized as a public trusteeship. Others involved share this public responsibility only to a degree, but it must never be forgotten in our pursuit of our individual objectives.

I particularly want to emphasize three elements of our responsibility to the public:

1. The first is the prompt response to any request for a new connection or for expanded facilities.

The layman doesn't understand and probably never will understand the complexities of our business. He has little sympathy for delays occasioned by necessary technical checks on the safety of the wiring system he has provided and wants energized. We must work together to see that procedural delays will be cut to the minimum and that inadequacies are anticipated by an industry that is alert to see that the public gets the best possible service from us.

2. The electric company customer is always trying to save money; to get his installation made as cheaply as possible. This is not always consistent with the requirements that we know are essential for a safe installation. We must have patience with his point of view and show him how his own best interest is served by spending money now to obtain a wiring system that is safe and will remain so for at least a reasonable interval of time.

3. The customer seldom has an adequate understanding of what electric service can do for him and is always prone to underestimate his requirements. Growth in his use of service is inevitable and is well illustrated by the steady increase in the average use of electricity per customer. On the Union Electric Co.'s system the average use per residential customer has increased in five years from 1453 kwhr in 1947 to 2243 kwhr in 1952, an increase of 790 kwhr, or 54 per cent. The customer's wiring system must now accommodate many appliances that he didn't even know about a few years ago when he built or bought his home. We in the industry who have some familiarity with what is coming and understand the compelling advantages of electrical living must help him anticipate these needs and must encourage him to think boldly about the scope of use which his wiring system must inevitably face.

Another element that I would like to remind you of is that of competition. We are very prone to think of electricity as an irreplaceable necessity when the facts are that it is facing stiffer competition for the customer's dollar today than ever before. You may have trouble persuading Mr. John Q. Public to spend money for a super-safe electrical installation when he can turn to some substitute which can be installed without burdensome restrictions. I'm talking about gas, of course, either piped or bottled. Regardless of how we feel about the inherent hazards of such a fuel, it is unrealistic to ignore the fact that electricity must compete with it and do so on the basis of local practice, whether that includes careful regulation and inspection of installations or not.

We might consider briefly the quantity and quality factors applicable to wiring systems. Basically, unless a wiring installation meets the customer's view as to quantity, it will not long retain its initial quality, for the customer will improvise and extend it to meet his requirements with little regard to the quality we know is essential to safety. So, if we are interested in a quality installation, our first concern should be to see that there are enough outlets to meet the customer's needs. Only in that way can we assure that the basic quality built into the initial installation will be maintained. If quality costs so much that quantity is sacrificed to meet the customer's economic limitations, then quality is inevitably depreciated. So it behooves us all to work for the maximum quantity which we can secure and at the same time make sure that minimum safety requirements are maintained.

My subject is stated as the "Utility Viewpoint on Uniform Inspection" and in getting around to discussing it I must let you in on a secret—"We're for it." We of the electric utility industry applaud the efforts your organization exerts in that direction and we hope to find ways in which we can work together to even better advantage than in the past to accomplish that end.

The term "Uniform Inspection" infers a uniform criterion by which installations are to be judged. We have that criterion in the National Electrical Code. It also infers a uniform interpretation of that criterion by the field forces engaged in the detailed application of the code to wiring installations and here again the work of the International Association of Electrical Inspectors is to be applauded. No other group contributes as much in spreading information on the National Electrical Code requirements and in obtaining uniform interpretations as to the proper application of the code to specific wiring applications.

This code is not a simple set of rules that can be memorized and applied more or less automatically. On the contrary, it is a bulky, highly technical set of interrelated requirements that matches the complexity of our modern electric distribution system. Its correct application to the day-to-day problems that arise in connection with consumers' wiring installations requires skill and understanding.

We in the electric utility industry feel that the machinery for keeping the National Electrical Code in step with progress in the technology of electrical installation work is well suited to the requirements. If it is not, it should be made so without delay, for it seems almost axiomatic that such a complex set of rules must have a competent and highly skilled set of experts to consider the merits of suggested changes and to consider and resolve the conflict of interest that is inherent in such a code. It must require adequate safety, but it cannot ignore the cost of attaining safer installations.

We try to see that the men who represent the electric utility industry on the National Electrical Code Committee are not only well qualified but have access to all data and information from our field operations that might be helpful. They have available for their assistance the regular standing committees of the Edison Electric Institute, the five regular engineering committees of which have a total membership of about 325 leading engineers of the electric utility industry throughout the United States. Of these, the Electrical Equipment (75 members), Meter and Service (53 members), and the Transmission and Distribution (87 members) Committees are the three most concerned with the National Electrical Code. Each of these committees generally meets three times a year. Their meetings provide a forum for the exchange of information and an opportunity to apply the pooled knowledge of the industry to the problems that arise. The code representative can bring questions arising in the code-making panels to these groups and secure the benefit of industry-wide

viewpoint. One example of this procedure was the discussion with the EEI Transmission and Distribution Committee of proposed revisions in Article 450 on Transformers, and Article 710, Circuits and Equipment Operating at More Than 600 Volts. In this way, advice was obtained from a representative group of electric utility distribution engineers and superintendents of electric utility distribution departments. As another example, a proposed change in Article 2375 was discussed with the Meter and Service Committee in order to obtain the benefit of experience of meter and service department engineers and superintendents on the suggested provision for locating a-c meters up to 600 v on the supply side of disconnecting means. The code representatives, through memberships on some of these engineering committees, or through contacts with members, keep in touch with the broad trend of practice and new developments in the industry.

On occasions the engineering committees have made particular investigations for the assistance of the Light and Power Group code representatives. An example is the study of branch circuit overcurrent protection for low-voltage circuits used for interior wiring, which was carried out four or five years ago by a small group from the EEI and AEIC Meter and Service and Transmission and Distribution Committee. The study included fairly extensive tests arranged with an independent laboratory and covered the fundamentals of the branch circuit protection problem, including the basic objectives of such protection and the best methods of attaining them. Copies of the report on this subject (EEI Publication No. R-9) were distributed to all interested groups in the NEC Committee.

In addition to the relations with the EEI committees, the Light and Power Group code representatives also have the benefit of the work conducted in joint industry committees between the Institute and other organizations, such as the joint committees between EEI and NEMA on preferred voltage ratings for a-c systems and equipment, motor starting currents, and similar matters. There is always opportunity for discussion with such groups on matters of mutual interest.

It seems to me that having satisfied ourselves that the code-making and revision machinery is competent and comprehensive, we should all support the code that results from its deliberations. I deplore efforts at the local level to substitute other criteria for wiring inspection or to take exception to its requirements in setting up local regulations to govern wiring inspection. If we have differences of opinions—such differences are almost inevitable in such a complex problem—let's debate them in a forum where people know exactly what we are talking about and where experts can assess the need, the cost, and the benefit of the suggestion dispassionately and objectively. Then when "the oracle has spoken" let's all be good soldiers and support the conclusion that has been arrived at right down the line.

Such a policy, practiced by all elements of the electrical industry will result in uniform inspection. We of the electric utility industry are for it.

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# PEA Holds Annual Meeting, Elects Officers

WITH a total registration of 895 delegates representing Pennsylvania electric companies and allied industries, the 46th Annual Meeting of the Pennsylvania Electric Association, held in Philadelphia on September 22-23, topped all previous attendance records.

John M. Orr, Duquesne Light Co., was elected association president, succeeding J. M. Huebner, Pennsylvania Power & Light Co. Named association vice presidents were T. O. McQuiston, Metropolitan Edison Co.; O. E. Flora, Pennsylvania Power Co.; and R. P. Liversidge, Philadelphia Electric Co.

In an address at an evening meeting on September 22, U. S. Secretary of the Interior Douglas McKay told the association that the Eisenhower Administration had established a middle course on the question of private versus public power development by giving localities primary responsibility for meeting their own power needs.

Secretary McKay stated that the department would not engage "in competition in duplication of facilities, particularly transmission lines." The present policy provides for serving "preference customers," such as municipalities, cooperatives, and public agencies at the lowest possible rate. "But," he said, "if we can equitably utilize local agencies, either public or private, in the interest of fairness and economy, we shall do so."

He disagreed with demands that government get out of the power business, lock, stock and barrel, declaring that "there is a place in this country for both public and private power."

Other speakers at the two-day sessions were the Hon. John S. Fine, Governor of Pennsylvania; Walter Sammis, President of Edison Electric Institute; Walter H. Johnson, Secretary of American Airlines; John R. Menke, President of Nuclear Development Associates, Inc.; and Dr. George S. Benson, President of Harding College.

Awards in the association's annual safety contests went to nine member companies of the association. Pennsylvania Power & Light Co. took first place in Group 1—companies averaging 2,500,000 or more man-hours annually—with an accident frequency rate of only 2.94. Second place went to Duquesne Light Co. and third to Pennsylvania Electric Co.

Winner in Group 2—companies averaging 350,000 to 2,499,999 man-hours yearly—was Northern Pennsylvania Power Co. with a perfect no-accident record. Luzerne Electric & Gas Division, U.G.I. Co., took second honors, and Scranton Electric Co. placed third.

In Group 3, composed of companies averaging 1,000 to 349,999 man-hours annually, Natrona Light & Power Co. won first place with a perfect no-accident record. In this group South Penn Power placed second and Home Electric Co. third.

Awards were also presented to those companies in each group which showed the greatest improvement in their accident frequency records over the preceding year. Winners were Duquesne Light Co. in Group 1; Northern Pennsylvania Power Co. in Group 2; and South Penn Power Co. in Group 3.

Metropolitan Edison Co. received the Group 1 award for lowest number of shock and burn lost-time and fatal accidents per hours worked during the contest year. The Group 2 winner of this award was Luzerne County Electric & Gas, and the Group 3 winner, South Penn Power.

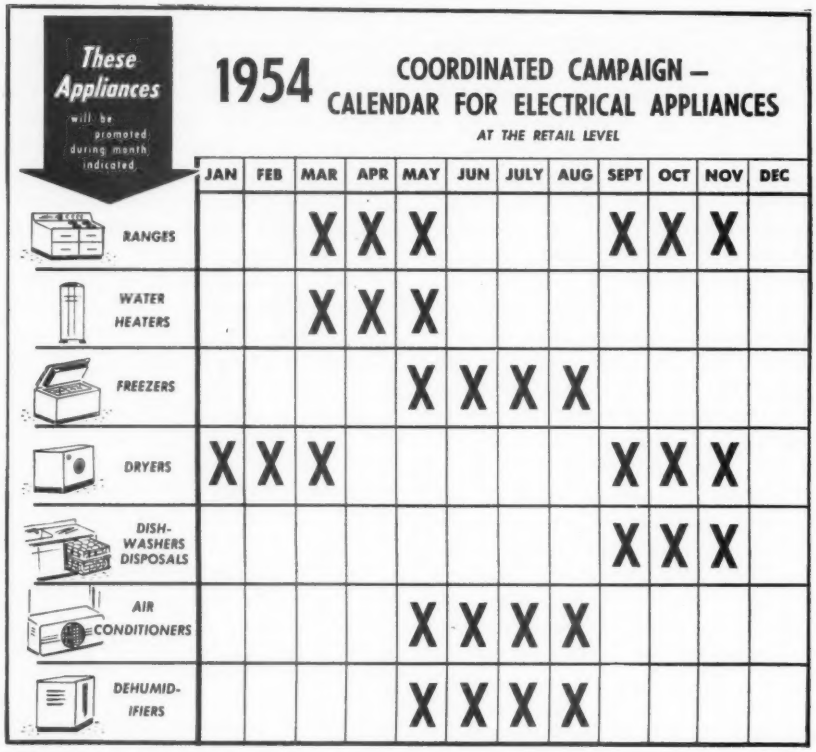
# Charles E. Wilson Named Jubilee Committee Head

CHARLES E. WILSON, former president of General Electric Co., has been named Chairman of the Sponsoring Committee for Light's Diamond Jubilee, Jubilee headquarters has announced. This committee, to be composed of a group of outstanding industrialists, will take the leadership in next year's nationwide celebration of the 75th anniversary of Edison's invention of the first practical incandescent lamp.

Mr. Wilson, now Chairman of the Executive Committee of W. R. Grace & Co., has spent virtually his entire life in the electrical industry. In 1898, at the age of 12, he joined the Sprague Electric Co. as office boy. In 1903 Sprague became part of General Electric, and he advanced from position to position until he was named president in 1940. In 1942 he was called to the War Production Board and for the next two years had charge of the total U. S. production effort. He returned to General Electric in 1944 as president but continued to serve the government in a number of capacities. In 1950 he took on a full time government job as director of the Office of Defense Mobilization for the Korean conflict, necessitating his resignation again from G. E. Since leaving the government in 1952, Mr. Wilson has devoted his efforts to a number of varied activities, including presidency of the Edison Pioneers, a group of associates and descendants of associates of Thomas A. Edison dedicated to the furtherance of the ideals of the great inventor.

In the very near future, Mr. Wilson expects to announce the other members of the Sponsoring Committee for Light's Diamond Jubilee and the completion of the organization for the Jubilee's celebration.

Two committees of the Jubilee organization are already at work on plans for the 75th anniversary of the incandescent lamp. These are the Jubilee Executive Committee, headed by D. C. Luce, Vice President of Public Service Electric and Gas Co., and the Jubilee Program Committee, headed by Ralph P. Wagner of Niagara Mohawk Power Corp., in Albany, N. Y.


These Appliances will be promoted during month indicated.
1954 COORDINATED CAMPAIGN — CALENDAR FOR ELECTRICAL APPLIANCES
AT THE RETAIL LEVEL
JAN FEB MAR APR MAY JUN JULY AUG SEPT OCT NOV DEC
RANGES X X X X X X
WATER HEATERS X X X
FREEZERS X X X X
DRYERS X X X X X X
DISH-WASHERS DISPOSALS X X X
AIR CONDITIONERS X X X X
DEHUMID-IFIERS X X X X

# Five New Promotional Campaigns Developed on Theme, "Be Modern . . . Live Electrically"

FIVE new promotional campaigns for major electrical appliances featuring the new industry slogan, "Be Modern . . . Live Electrically," are now being prepared by the EEI Residential Promotion Committee. The entire electrical industry will be encouraged to join in these coordinated activities to gain maximum concentration of promotional and advertising efforts during campaign periods. The months in which the various appliances are to be featured coincide with the accompanying 1954 industry-wide campaign calendar.

Five programs to be used in 1954 will promote the four major appliances, the Electric Range, Electric Water Heater, Electric Dryer and Electric Freezer. Each program will have a different theme as follows:

For each campaign an attractive display kit and a consumer folder featuring the theme will be produced by the Institute. With these items serving as the focal point, electric companies, manufacturers, dealers, distributors, and electrical leagues will be encouraged to conduct local campaigns using locally produced items or those available from commercial suppliers. A detailed announcement of each campaign will be mailed to the industry about three months in advance of the campaign date.

"Be Modern . . . Live Electrically" was selected by industry representatives as the new slogan which could most readily be adapted to all advertising and promotional activities of the industry.

| Appliance | Theme | Time |
|---|---|---|
| Range | Spring Showing | March-*April*-May |
| Water Heater | Get Rid of Your Old-Fashioned Water Heater | March-April-*May* |
| Freezer | Food Freezer Festival | May-*June*-July-Aug. |
| Range | (To Be Announced) | *Sept.*-Oct.-Nov. |
| Dryer | Why Do It the Hard Way | Sept.-*Oct.*-Nov. |

Months italicized are those selected for concentration of sales effort.

# Depreciation Policy of the Internal Revenue Service

**R. C. Staebner**

*Engineering and Valuation Branch, Internal Revenue Service*

An address before the Taxation Accounting Committees of the American Gas Association and the Edison Electric Institute, Washington, D. C., October 1, 1953

FOR at least the past two decades depreciation has been considered and studied by the management of practically every business in the country. I am sure that no discussion of elementary depreciation principles is necessary or appropriate here. However, a brief statement of the history of depreciation for income tax purposes as found in the Internal Revenue Code and Regulations may not be out of place.

Section 2G(b) of the Act of October 3, 1913, provided for "a reasonable allowance for depreciation by use, wear and tear of property, if any."

The Revenue Act of 1918 [Sec. 234(a)(7)] provided for the deduction of "A reasonable allowance for the exhaustion, wear and tear of property used in the trade or business, including a reasonable allowance for obsolescence," and this clause has been in every subsequent revenue act.

Article 165 of Regulation 45 (1918 Act) states as follows:

> Method of computing depreciation allowance . . . The capital sum to be replaced should be charged off over the useful life of the property either in equal annual installments or in accordance with any other recognized trade practice, such as an apportionment of the capital sum over units of production. Whatever plan or method of apportionment is adopted must be reasonable and should be described in the return.

Article 165 of Regulations 62 (1921 Act), Regulations 65 (1924 Act), Regulations 69 (1926 Act), and Article 205 of Regulations 74 and 77 (1928 and 1932 Acts) strike out the words "and should be described in the return" and add the following: "and must have due regard to operating conditions during the taxable period. While the burden of proof must rest upon the taxpayer to sustain the deduction taken by him, such deductions must not be disallowed unless shown by clear and convincing evidence to be unreasonable. The reasonableness of any claim for depreciation shall be determined upon the conditions known to exist at the end of the period for which the return is made."

Article 23(1)-5 of Regulations 86 (1934 Act) contains the first, second, and fourth sentences of Article 165 of prior regulations but states explicitly that "The burden of proof will rest upon the taxpayer to sustain the deduction claimed" and adds some more clauses to conform the regulations to T.D. 4422, approved February 28, 1934, which amended all prior regulations as far back as Regulations 62. Article 23(1)-5 has stood unchanged through all subsequent regulations.

There are, of course, other articles in the regulations with respect to depreciation, but the method of determining the depreciation deduction is the essential question under discussion here. It will be noted that from the 1918 Act onward the regulations in this respect have provided essentially as follows:

1. That the basis of the asset shall be charged off over the useful life of the property.
2. That the straight-line method is not mandatory but if it is not used, a "recognized trade practice" is required.
3. That the method of apportionment must be reasonable.
4. Beginning with the 1921 regulations a fourth condition is added: The reasonableness of a depreciation deduction is to be tested by the facts known at the end of the taxable year.

From 1921 until 1934, although the strictly legal burden of proof rested upon the taxpayer to sustain the deduction claimed, the regulations held that the depreciation claimed in the return was not to be disallowed unless shown by clear and convincing evidence to be unreasonable. However, T.D. 4422 retroactively revised the regulations back through 1921 and placed the burden of proof upon the taxpayer to affirmatively sustain the deductions claimed and provided that he must furnish "full and complete information with respect to the cost or other basis of the depreciable assets, their age, condition, and remaining useful life," etc., and, furthermore, eliminated the provision that depreciation claimed shall not be disallowed unless shown by clear and convincing evidence to be unreasonable.

As far as this writer knows, the validity of the four essential principles stated above has never been questioned by a court. In fact, they have not often been challenged, and decisions in point are somewhat difficult to find. In the Wier Long Leaf Lumber Co. case (9 TC 990), the Tax Court said, in part, "It has long been the rule that depreciation deductions are to be corrected in any year when it is apparent that the factor involving the extent of useful life is erroneous . . . and that the reasonableness of a deduction for depreciation is to be determined upon conditions known to exist at the end of the period for which the return is made."

Utility accountants are conversant with the depreciation determinations which have been made in their own cases over the past 20 years under the authority of these provisions. Certainly more than 90 per cent of the depreciation adjustments in public utility cases have been agreed to by the taxpayers concerned and have been based on a careful consideration of the available evidence, both historical and prospective. Useful life determinations have been based primarily on generally accepted methods of historical analysis, such as turnover studies, mortality curves, asymptotic calculations, etc., to the full extent of

available information. These studies, however, were never accepted as final answers and were modified to the extent necessary by consideration of reserve ratios, growth rates, accounting practices, and forecasts of probable future eventualities. The objective has always been to conform the useful lives and the depreciation deduction to each taxpayer's actual experience, accounting practice, maintenance policies, and the physical and economic conditions under which he operates. At the same time, it has been necessary to conform to the Internal Revenue Code and the regulations issued thereunder, as interpreted by the Internal Revenue Service and the Courts.

On May 11, 1953, there were issued two important statements of depreciation policy, IR-Mimeograph No. 183 and IR-Circular No. 144; these were published as Revenue Rulings 90 and 91, respectively, in Internal Revenue Bulletin No. 11, May 25, 1953. Although both documents may be familiar, it seems worth while to cite them here, as they set forth present depreciation policy:

Revenue Ruling 90—Policy with respect to depreciation adjustments.

1. The internal revenue laws allow as a deduction in computing net income a reasonable allowance for depreciation of property used in trade or business or of property held for the production of income. The purpose of the deduction is to permit taxpayers to recover through annual deductions the cost (or other basis permitted by law) of the property over the useful life of the property. The determination of the amount of the deduction is largely a matter about which there may be reasonable differences of informed judgment, but the impact on the revenues resulting from these differences may be negligible one way or the other over the years involved.
2. Accordingly, effective May 12, 1953, and as respects all open years for which agreement as to the tax liability has not been reached at any level within the Internal Revenue Service as of that date, it shall be the policy of the Service generally not to disturb depreciation deductions, and revenue employees shall propose adjustments in the depreciation deduction only where there is a clear and convincing basis for a change. This policy shall be applied to give effect to its principal purpose of reducing controversies with respect to depreciation.

Revenue Ruling 91 — Instructions relating to policy with respect to depreciation adjustments.

1. The purpose of this Revenue Ruling is to furnish guidance with respect to the application of Revenue Ruling 90, which sets forth the policy with respect to depreciation adjustments.
2. Among the factors which should be given careful consideration in order to give full force and effect to the announced policy are the following:
   (a) Whether depreciation rates used by the taxpayer are fair and reasonable under the circumstances;
   (b) Whether the taxpayer has followed a consistent practice in arriving at the amount of depreciation deductions;
   (c) Whether in considering all factors, including reasonable tolerances, any adjustments proposed are substantial.
3. In the establishment of the depreciation rates for a taxpayer, careful consideration shall be given to facts and arguments presented by the taxpayer with respect to obsolescence, as well as to the repair and maintenance policy of the taxpayer.

(Procedural matter omitted)

In further explanation of the policy the Commissioner of Internal Revenue himself has made various public statements, perhaps the most significant of which is as follows:

> The position I have taken on depreciation, with the group that we have studying it, is that once the depreciation on a particular category or type of property is established and the taxpayer and the Revenue Service agree to it as proper, it should not be changed after that point unless the one who wants to change it takes the burden of proof that the original determination was wrong or no longer applies.
>
> What I am trying to do is get a reasonable policy, save annoyance to everybody and have a rule under which, once a determination is made, there it is going to stay until the Government proves it ought to be lower or the taxpayer proves it ought to be higher. (*From U. S. News & World Report,* May 8, 1953.)

It is obvious that of necessity certain of the phraseology in these documents and statements, e.g., "clear and convincing basis," "fair and reasonable," "reasonable tolerances," "substantial adjustments," etc., are relative terms. But there is no way of laying down precise instructions that will cover the almost infinite variations of facts and circumstances that may arise in several million income tax cases. Nevertheless, the objective of these policy statements is clear: the avoidance of controversy, of frequent and inconsequential adjustments, and the application of a considerable tolerance in the limits to be applied to the words "reasonable depreciation." Furthermore, it may be seen that the burden of substantiating an adjustment to depreciation rates previously agreed upon falls on the party proposing the change.

Perhaps the most difficult problem confronting the rank and file of the Internal Revenue Service in the administration of this policy will be the decision as to what facts and circumstances constitute a "clear and convincing basis" for an adjustment to depreciation. However, long experience with the management and tax representatives of the public utilities has established beyond question that they are a conscientious and reasonable group of men, desirous of getting at the right answer in income tax cases, and I am sure that the spirit of cooperation always evidenced in the dealings of utilities with the Internal Revenue Service will continue.

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### Audit Manual Sections Available

FOUR sections of the Auditing Procedure Manual, a continuing project of the EEI-AGA Internal Auditing Committees, are now available. In addition to these sections which cover Manual Format, Accounts Receivable, Cash and Securities, and Payrolls, three new sections are nearly finished. The manual is priced at $6.00, which includes the cost of a three-ring binder, existing sections, and others to be completed. Address orders to EEI.

# Fatal Accidents in the Electric Light and Power Industry

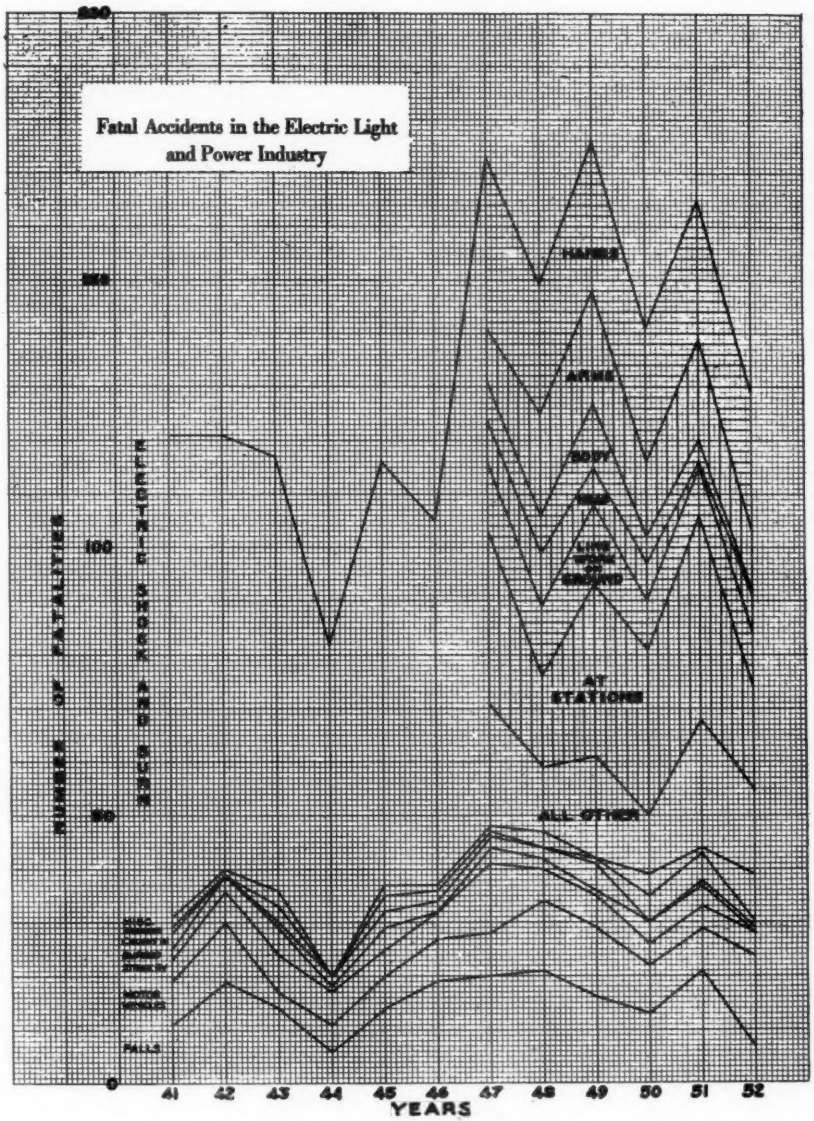
**S. H. Young**
*The Hartford Electric Light Company*

IT is gratifying to report that there were 36 less fatalities in the electric light and power industry in 1952 than in 1951. Think what this means to 36 of our employees and their families. This reduction has given the industry a new low in its severity rate. It has resulted in a very substantial saving to the industry, and some may say that it is a wonderful achievement. But, before we start doing any back slapping, let us take a close look at the summary and then decide how well we have done.

The 1952 summary lists 129 fatal accidents. These break down into the same type as in previous years. The principal causes were the same. For years, the reasons for these accidents have been known, and appropriate ways and means to prevent their occurrence have been determined. Still, in 1952, there were 129 cases, which prove that we are not doing the best we know how. (See pp. 431-432.)

Let us study this summary and break it down into preventable and nonpreventable accidents. I am sure that the brief description given will demonstrate that the greatest percentage was preventable and should not have occurred. The individual reports from which the summary was compiled have been carefully studied and, according to the information given in the reports, it would appear that 20 or less of these accidents can be classified as accidental and unavoidable. Perhaps some of these, if all the details were available, would be judged as preventable. The others, in my opinion, were the result of failure to appreciate potential hazards, failure to use safety equipment properly, or failure of the individual to put in use his knowledge of established safe-work procedures.

It may be interesting to know a little about the men included in last year's summary. How old were they? How many years of service did they have? How many years of service did the industry lose because of accidents involving these men?




*Hand, arm, body, and head contacts occurred while working on poles.

The average age of all the men killed by electric shock or burns on line work is 34.1 years, and their average period of service is 7.9 years. The average age of those involved in electric shock or burn accidents at stations is 41.1 years, and their years of service average 16. The age of those involved in highway accidents averages 45.7 years, and the average of their years of service is 20. Please refer to the summary and note the occupation of the drivers involved in highway accidents.

The average age of the men involved in the 125 cases on which data was furnished is 38.3 years, and the average number of years of service for the whole group is 11.1. Assuming that the general age for retirement is 65 years, then the average had 26.7 years to go until retirement. This means that the industry in the year 1952 alone lost over 3,000 years of service. This waste of manpower should make us realize that we have yet much to do; and until our records show that fatalities occur only through causes beyond reasonable control can we say that our accident prevention efforts have been successful. Perhaps this reduction of 36 fatalities in one year is an indication that we are working in the right direction, but no one should feel that we have arrived at our destination.

Electric shock and burn cases, as always, were in the majority. They were 69.7 per cent of the total. Several types of accidents showed marked reductions from 1951. Electric shock and burn cases at stations dropped from 38 in 1951 to 19 in 1952. Falls dropped from 49 to 7. Arm and shoulder contacts on line work dropped from 23 to 14, though head contacts increased from 1 to 7, and motor vehicle fatalities increased over 100 per cent, that is, 8 in 1951 to 17 in 1952. Hand contact fatalities on line work were 16, the same as in 1951, in spite of all that has been done to persuade linemen that rubber gloves must be worn while in the primary area.

The 1952 figures have been added to the accompanying graph. It will be noted that the top line indicating total fatal accidents dropped from the previous year. It has alternately gone up and down, year after year. However, there is no secret that we have to learn to keep this line on its downward path until it reaches the point where it straightens out across the chart, representing the unavoidable cases that can be classified as truly accidental. All that is necessary is to put in practice the accident prevention know-how that we possess.

TWELVE YEARS OF FATAL ACCIDENTS IN THE ELECTRIC LIGHT AND POWER INDUSTRY, 1941 TO 1952, INCLUSIVE

(From EEI Accident Prevention Committee Summaries)

| Year | Total | Electric Shock or Burn | Falls | Motor Vehicles | Struck By | Burned | Caught In | Drowned | Miscellaneous | No Data |
|---|---|---|---|---|---|---|---|---|---|---|
| 1941 | 121 | 90 | 11 | 8 | 4 | 2 | 3 | 1 | 2 | |
| 1942 | 121 | 81 | 19 | 11 | 6 | 3 | 0 | 0 | 1 | |
| 1943 | 117 | 81 | 14 | 3 | 7 | 5 | 1 | 3 | 3 | |
| 1944 | 82 | 62 | 6 | 5 | 6 | 1 | 2 | 0 | 0 | |
| 1945 | 116 | 79 | 14 | 6 | 5 | 4 | 3 | 3 | 2 | |
| 1946 | 105 | 68 | 19 | 8 | 5 | 0 | 2 | 2 | 1 | |
| 1947 | 173 | 125 | 20 | 8 | 13 | 3 | 2 | 1 | 1 | |
| 1948 | 149 | 102 | 21 | 13 | 6 | 2 | 2 | 0 | 3 | |
| 1949 | 176 | 134 | 16 | 13 | 6 | 1 | 5 | 1 | 0 | |
| 1950 | 141 | 102 | 13 | 9 | 4 | 4 | 0 | 5 | 4 | |
| 1951 | 165 | 121 | 21 | 8 | 4 | 4 | 1 | 5 | 1 | |
| 1952 | 129 | 90 | 7 | 17 | 4 | 0 | 1 | 1 | 5 | 4 |
| Total | 1,595 | 1,135 | 181 | 109 | 70 | 29 | 22 | 22 | 23 | 4 |

DISTRIBUTION OF ACCIDENT TYPES

(By Percentages of Total Accidents)

| | 1952 | 12-Year Average | 12-Year Range Minimum | 12-Year Range Maximum |
|---|---|---|---|---|
| Electric Shock or Burn | 69.7 | 71.2 | 64.7 | 76.0 |
| Falls | 5.4 | 11.3 | 5.4 | 18.1 |
| Motor Vehicles | 13.2 | 6.8 | 2.6 | 13.2 |
| Struck By | 3.1 | 4.4 | 3.1 | 7.5 |
| Burned | 0.0 | 1.8 | 0 | 4.3 |
| Caught In | 0.8 | 1.4 | 0 | 2.8 |
| Drowned | 0.8 | 1.4 | 0 | 3.5 |
| Miscellaneous | 3.9 | 1.5 | 0 | 3.9 |
| No Data | 3.1 | 0.2 | 0 | 3.1 |

# Ten More Safety Merit Awards Presented to Companies for Accident-Free Operation

TEN EEI Safety Merit Awards have been presented during the July 15-October 15 period honoring companies which worked 1,000,000 or more man-hours without a lost-time accident. Since the Award was instituted in 1942, a total of 296,616,563 accident-free man-hours worked by electric power companies throughout the country have been recognized, including the latest number of hours for which awards have been made.

The most recently reported award recipients worked a total of 11,371,161 accident-free man-hours. They are:

| | |
|---|---|
| Alabama Power Co. | |
| Winfield District | 1,067,825 |
| Consolidated Edison Co. of New York, Inc. | |
| Outside Plant Construction, Underground Bureau | 1,000,000 |
| Station Construction and Shops, Shops | 1,000,000 |
| Consolidated Gas Electric Light and Power Co. of Baltimore | |
| Electric Division | 1,477,577 |
| Duquesne Light Co. | |
| Distribution Department, Downtown Division | 1,000,715 |
| Kansas Gas and Electric Co. | |
| Entire Company | 1,177,536 |
| New Orleans Public Service Inc. | |
| Electric Department | 1,068,340 |
| Tampa Electric Co. | |
| Peter O. Knight Station | 1,001,394 |
| Texas Power & Light Co. | |
| Entire Company | 1,165,086 |
| West Penn Power Co. | |
| Entire Company | 1,412,688 |

# Recent EEI Publication

**Electric Welding**

EEI Power Sales Manual, Chapter 39, Copyright 1953. 73 pages. Prepared by the Industrial Power and Heating Section of the EEI Commercial Division. Price: $2.00 per copy. Quantity prices on request.

Divided into four parts, this chapter of the Power Sales Manual covers general classifications of welding, namely, arc welding, resistance welding, induction welding, and electric brazing. At the end of each subject discussed is a bibliography for the convenience of those desiring more detailed study of any of the processes. Prepared after considerable research and study, it helps the salesmen understand the problems involved in serving this type load and gives him a knowledge of the types of equipment which can minimize or eliminate them.

# Review and Classification of 129 Fatal Accidents Reported During 1952 Within the Electric Light and Power Industry

## Edison Electric Institute Accident Prevention Commitee

*(This summary was compiled from detailed reports submitted to the Institute)*

| | | | PATH OF CURRENT: VICTIM Entry | VICTIM Exit | EQUIPMENT Energized | EQUIPMENT Ground | Voltage | Occupation | DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|
| LINE WORK ON POLES 56 CASES | CONTACTS ESTABLISHED WHILE CLIMBING OR WORKING IN WORKING POSITION BUT WITHOUT CUTTING OUT OR LOSING BALANCE | HANDS 26 CASES | L-Hand | R-Hand | Trans. Sec. | Guy Wire | 190-220 | App. Lineman | 1. While changing position on pole, grasped guy wire and secondary wire with hands. |
| | | | Hand | Ankle | Trans.Bracket | Tel. Wire | Primary | Inspector | 2. Case on defective transformer alive--climbed pole, contacted case. |
| | | | R-Hand | L-Hand | Pri. Riser | Guy Wire | 2300 | App. Lineman | 3. Converting system from delta to wye. Contacted live primary riser through error. |
| | | | L-Thumb | Feet | Hot Guy Wire | Tel. Cable | 2400-4000 | Lineman | 4. Crossarm guy alive from sagged primary wire. Contacted guy. |
| | | | Finger-R-Hand | L-Side | Bond Wire | Grd. Chain | 2400-4160 | Lineman | 5. Replacing crossarm. Bond wire contacted primary beyond line hose. |
| | | | L-Hand | R-Leg | Pri. Jumper | Neut. Clamp | 2400-4160 | Lineman | 6. Tapping in oil switch. De-energized two phases. Left other alive. Failed to test and ground. |
| | | | L-Hand | Leg | Hot Guy Wire | Tel.& Sec.Wire | 2400-4160 | App. Lineman | 7. Running service. Grasped guy wire for support. Pulled it into contact with primary. |
| | | | Hand | L-Side | Pri. Wire | Sec. Wires | 2400-4160 | Lineman | 8. Removing line hose without rubber gloves. |
| | | | Hand | Hand | Pri. Wire | Sw. Frame | 2400-4160 | Lineman | 9. Installing air break switch on pole. Operating rod held in hand contacted uncovered primary. |
| | | | L-Hand | L-Foot | Pri. Wire | Pole | 4800-8320 | Lineman | 10. Had disconnected pri. tap. Removed gloves to run service. Forgot to put them on to re-connect pri. tap. |
| | | | R-Hand | Chest | Trans. Pri. | Guy Wire | 12000 | Lineman | 11. Had placed 18" bit and brace on X-arm. Swung bit up into wire above upon removing it. |
| | | | R-Hand | Abdomen | Floating Neut. | DA Bolt | 12500 | Troubleman | 12. Replacing blown transformer fuse. Contacted floating neutral while belting in. |
| | | | R-Hand | L-Leg | Pri. Wire | Trans. Case | 6900-12000 | Lineman | 13. Connecting secondary neutrals. Swung jumper wire over head. Wire contacted primary. |
| | | | L-Hand | Feet | Trans. Riser | Trans. Case | 6900 | Lineman | 14. Changing transformer secondary taps. Failed to open cutout. Contacted hot primary tap. |
| | | | R-Hand | L-Hip | Clamp on Gin | Guy Wire | 6900 | Troubleman | 15. Replacing insulator. Wires raised on gin. Tie wire touched brass hardware on gin. |
| | | | R-Hand | Head | Pri. Wire | Grd. Wire | 7200 | Lineman | 16. Failed to open cutout. Attempted to attach come-a-long to hot wire. |
| | | | R-Hand | Feet | Fuse Cutout | Grd. Wire | 7200-12000 | Serviceman | 17. Re-fusing branch line without rubber gloves. Contacted fuse cartridge. |
| | | | R-Wrist | R-Knee | Fuse Cutout | Trans. Bolt | 7200-12000 | Lineman | 18. Installing hot line clamp with rubber glove on left hand. Right hand contacted live cutout. |
| | | | L-Hand | R-Hand | Pri. Jumper | Neut. Wire | 7200-12500 | Lineman | 19. Disconnected tap with hot stick. Took hold of tap which was still alive with bare hand. |
| | | | Hands | Legs | Tel. Wire | Grd. Wire | 7200 | Lineman | 20. Removing old hi-line telephone wire. Slacked wire off onto Co-op line at crossing. |
| | | | L-Hand | R-Arm | Pri. Wire | Sec. Wire | 7200 | Lineman | 21. Disconnected transformer ground tap instead of live tap. Contacted live tap with bare hand. |
| | | | R-Hand | L-Arm | Pri. Cutout | Grd. Wire | 7200 | Serv. Foreman | 22. Removed rubber gloves after fusing cutout. Made contact while unbelting. |
| | | | R-Hand | L-Hand | Trans. Riser | Trans. Tank | 4200-7200 | Lineman | 23. On pole waiting for fellow lineman to cut trans. tap. Made contact with tap before it was cut. |
| | | | L-Hand | R-Hand | Trans.Bushing | Grd. Wire | 7200 | Lineman | 24. Loosening nut on thru-bolt. Wrench contacted transformer bushing. |
| | | | L-Hand | R-Leg | Conductor | Neut. Wire | 7600-13800 | Lineman | 25. Had finished work on pole. While changing position, contacted conductor with bare hand. |
| | | | L-Hand | R-Hand | Steel X-arm | Guy Wire | 4500 (St.Lt.) | Troubleman | 26. Climbing pole to open OCB. Contacted steel arm alive from bare connector on st.lt. conductor. |
| | | ARMS 11 CASES | R-Forearm | Head & L-Hip | Pri. Wire | Steel Arm | 1330-2300 | Lineman | 27. Connecting new circuit. Contacted end of wire wrapped around insulator. |
| | | | R-Forearm | R-Thigh | Pri. Wire | Neut. Wire | 2300-4000 | Lineman | 28. Connected jumper to wrong phase. Was working too high on pole. |
| | | | L-Forearm | Head | Wire Tail | Guy | 2300-4000 | Lineman | 29. Shifting wires. End of wire contacted arm above rubber gloves. |
| | | | L-Forearm | R-Foot | Pri. Wire | Pole | 2400-4160 | Lineman | 30. Shifting wires with no rubber protection on wires. Contacted wire. |
| | | | L-Forearm | Chest | Temp. Jumper | Temp. Jumper | 2400-4160 | Serviceman | 31. Belting in to fuse transformer. Contacted improperly installed temporary jumper. |
| | | | R-Forearm | R-Leg | Tie Wire | Grd. Wire | 4000-6900 | Lineman | 32. Tying in conductor. End of tie wire caught in cuff of rubber glove. |
| | | | L-Forearm | R-Thigh | Pri. Wire | Neut. Wire | 6900 | Lineman | 33. Tying conductor to insulator. Working too high on pole. Contacted wire. |
| | | | R-Forearm | Leg | Arrestor | Neut. Wire | 6900-12000 | Lineman | 34. Made contact while belting in. Possibly blinded by spot light. |
| | | | L-Arm | Legs | Cutout Lead | Sec. Wire | 6900-12000 | Serviceman | 35. Belted in too high on pole. Contacted cutout lead while using switch stick. |
| | | | R-Forearm | L-Foot | Pri. Wire | Sec. Wire | 7200 | Lineman | 36. Restoring service after storm. Moved up into energized primary area against instructions. |
| | | | L-Upper Arm | R-Upper Arm | Pri. Wire | Neut. Wire | 7200-12500 | Line Foreman | 37. Reached over X-arm to install tie. Working too high on pole. |
| ELECTRIC SHOCK OR BURN 90 CASES 69.7% | | SHOULDER 3 CASES | L-Shoulder | R-Arm | Pri. Wire | Grd. Wire | 2300 | App. Lineman | 38. Removing come-a-long. Conductor or grounds not covered. Contacted primary. |
| | | | R-Shoulder | L-Leg | Pri. Wire | Grd. Wire | 2300 | Foreman | 39. Skinning wire. Contacted hot line clamp on jumper. No line hose used. |
| | | | L-Shoulder | R-Leg | Pri. Wire | Crec. Pole | 2400-4160 | Lineman | 40. Come-a-long and blocks improperly used. Swung against injured. Wires not sufficiently covered. |
| | | HEAD 7 CASES | L-Cheek | R-Elbow | Sec. Wire | Sec. Wire | 120-240 | Lineman | 41. Shifting secondary wire from old to new pole. Wire contacted face. |
| | | | R-Cheek | R-Thigh | Pri. Wire | X-arm Brace | 1528-2300 | Serviceman | 42. Removing energized wire from come-a-long. Wire sprung back against face. |
| | | | Head | L-Foot | Pri. Wire | Tel. Wire | 2400-4160 | Lineman | 43. Installing wire on buckarm. Made contact on uncovered primary. |
| | | | Head | Legs | Trans. Lead | ----- | 7200 | Lineman | 44. Changing position on pole. Raised head into primary transformer lead. |
| | | | Head | L-Foot | Pri. Clamp | St.Lt.Bracket | 7200 | Lineman | 45. Pushed head against blanket over primary. Blanket opened. Head contacted clamp. |
| | | | Head | R-Hand | Trans. Lead | Serv. Wire | 7200-12000 | Lineman | 46. Pulling slack. Raised head into transformer lead. |
| | | | Head | L-Hand | Conductor | St.Lt.Circuit | 20000-34500 | Lineman | 47. Tieing in conductor. Straightened up, head contacted wire above. |
| | | BODY 1 CASE | Back | L-Hand | Pri. Wire | HV Conductor | 4000-7200 | Lineman | 48. Working between live primary and dead transmission wires. Clearing trouble. Made contact. |
| | | LEG 1 CASE | Thighs | Feet | Disc. Sw. | Pole | 7200-12500 | Serviceman | 49. Changing position on pole. Contacted open disconnect alive from backfeed. |
| | Contact Undetermined 2 Cases | | | | Pri. Wire | ----- | 1385-2400 | Lineman | 50. Replacing insulator on 33 KV line above primary. Probably contacted primary with ankle. |
| | | | | | Conductor | Pole | 110000 | Line Foreman | 51. See No. 66, double fatality. Wire on 60 KV circuit contacted parallel line. Insufficient grounds. |
| | No Contact -- Flash Burns | | | | | | 33000-66000 | Lineman | 52. Measuring X-arm bolts. Came too close to conductor. |
| LINE WORK ON GROUND 10 CASES | CUTOUT OR LOSS OF BALANCE 4 CASES | | R-Elbow | ----- | Pri. Wire | Guy | 2400-4160 | Lineman | 53. Unfastened safety strap to lengthen it. Suffered heart attack. Fell into primary. |
| | | | L-Upper Arm | L-Knee | Pri. Wire | Sec. Rack | 2400-4160 | App. Lineman | 54. Attaching sling to transformer. Gaff cut out. Lost balance. Contacted primary. No rubber protection. |
| | | | Arms | L-Leg | Pri. Wire | X-arm Brace | 2450-6970 | Lineman | 55. Standing on buckarm pulling slack. Lost balance. Fell against primary. No rubber protection. |
| | | | R-Hand | L-Hand | Trans.Bushing | Transformer | 6900-12000 | Lineman | 56. Standing on steel trans. platform. Assumed he lost balance and contacted transformer bushing. |
| | Energized Wire | | Hands | Feet | St.Lt. Wire | Earth | 1300-2300 | Clerk-Driver | 57. On ground pulling street-light wire. Wire contacted primary several sections distant. |
| | Energized Truck | | L-Hand | Feet | Truck | Earth | 2400 | Groundman | 58. Setting pole with ground wire attached. Contacted primary. Injured touched energized truck. |
| | Energized Wire | | R-Hand | L-Foot | Pri. Wire | Earth | 2300-4000 | Helper | 59. Stringing wire. Injured touched new wire which contacted live primary. |
| | Primary Fell | | L-Shoulder | Feet | Pri. Wire | Earth | 2400-4160 | Groundman | 60. Rolling up junk wire. Live primary wire fell on injured. |
| | Energized Wire | | Face | Feet | Pri. Wire | Earth | 7600 | Serviceman | 61. Clearing down wires, cut on load side. Contacted wires thought dead. |
| | Energized Wire | | R-Hand | Feet | Pri. Wire | Earth | 7200 | Lineman | 62. Clearing down wires. Opened wrong disc. Made contact on wires thought dead. |
| | Energized Wire | | Hands | L-Foot | Come-a-long | Earth | 9300-16000 | Groundman | 63. Wire being pulled over hot circuit snagged in tree. Slacked off onto live wire. Injured tending reel. |
| | Energ.Grd.Wire | | R-Hand | Feet | Grd. Wire | Earth | 33000 | Line Foreman | 64. Removing old pole after replacement. Ground wire on old pole fell on conductor. |
| | Energ.Grd.Wire | | Stomach | Feet | Grd. Wire | Earth | 44000 | Lineman | 65. Setting pole with ground wire attached. Pole contacted live wire. |
| | Energ.Grd.Wire | | ----- | ----- | Conductor | Earth | 110000 | App. Lineman | 66. See No. 51, double fatality. Injured was on ground straightening wire. |
| SURVEYING 2 CASES | Tape | | Hands | Feet | Conductor | Earth | 7600-13000 | Surveyor | 67. Checking pole height. Threw metallic tape over line. Contacted tape. |
| | Chain | | R-Hand | Feet | Survey Chain | Earth | 26000-45000 | Chainman | 68. Survey crew chaining under transmission line in gully. Pulled chain up into line. |
| CRANE 1 CASE | Energized Boom | | L-Hand | L-Foot | Cable Sling | Earth | 72000-12000 | Laborer | 69. Pulling concrete piers. Boom drifted into wire overhead. Victim holding sling on hoist line. |
| UNDERGROUND 2 CASES | | | Knee | Back | Cable | Lead Sheath | 120-208 | Splicer | 70. Making live sec. joint in manhole. Sweaty knee touched conductor. Back was against lead cable. |
| | | | Back | L-Shoulder | Parkway Cable | Ceiling I Beam | 2400-4150 | Splicer | 71. Contacted broken-down parkway cable in manhole while checking for trouble. |

# Review and Classification of 129 Fatal Accidents Reported During 1952
# Within the Electric Light and Power Industry
# Edison Electric Institute Accident Prevention Committee

*(Continued)*

| | | | PATH OF CURRENT: VICTIM Entry | VICTIM Exit | EQUIPMENT Energized | EQUIPMENT Ground | Voltage | Occupation | DESCRIPTION |
|---|---|---|---|---|---|---|---|---|---|
| ELECTRIC SHOCK OR BURN CONT. | AT STATIONS ON OR AROUND EQUIPMENT BUS STRUCTURES ETC. 19 CASES | ENERGIZED BUSES, LINES, RISERS, LEADS 3 CASES | Thigh & Back | L-Leg | Bus | Steel Truss | 2300-4000 | Line Foreman | 72. Climbing around arresters on station structure. Slipped or fell onto station bus. |
| | | | L-Hand | R-Arm-Hand | Reg. Lead | Reg. Case | 2400-4000 | Lineman | 73. Changing regulator next to live regulator. Attempted to work on live regulator. No barricades in use. |
| | | | R-Hand | L-Thigh | Trans. Lead | Sta.-Str. | 7200 | El.Mte.Foreman | 74. Shaping tap thought dead. Tap alive from backfeed from test being run by test crew. |
| | | | Shoulder | ----- | Sw. Riser | OCB Case | 13800 | El.Mte.Man | 75. Cleaning OCB bushings. Attempted to work on adjacent energized OCB. |
| | | DISC. SWITCHES 3 CASES | L-Shoulder | Feet | Disc. Sw. | Angle Iron | 8000-13800 | Mechanic | 76. Changing lugs on dead disc. Walked shoulder into live jaw of switch above. |
| | | | Upper Part of Body | | Disc. Sw. | ----- | 6900-12000 | Operator | 77. Checking trouble. Erroneously entered adjacent energized compartment. |
| | | | R-Hand | Legs | Disc. Sw. | Steel Ladder | 44000 | Lineman | 78. Shaping arcing horns on live line with hot stick. Contacted adjacent air break switch. |
| | | ELECTRIC BURNS NO CONTACT 3 CASES | ----- | ----- | OCB | ----- | 1330-2300 | Elec. Mte. | 79. OCB to be inspected had been de-energized and tagged. Attempted to work on nearby live switch. |
| | | | ----- | ----- | OCB | ----- | 1330-2300 | Elec. Mte. | 80. Same as 79, double fatality. |
| | | | ----- | ----- | Disc. | ----- | 2400-4160 | Mechanic | 81. Ringing out dead cable. Reached beyond barrier into energized bay. Flash resulted. |
| | | OIL BURNS FOLLOWING ELEC. EXPLOSION NO CONTACT 5 CASES | ----- | ----- | OCB | ----- | 4340 | Trouble Spl. | 82. Transferring load on interlocked OCB's. OCB exploded while checking its failure to open. |
| | | | ----- | ----- | OCB | ----- | 4340 | Cable Splicer | 83. Same as 82, double fatality. |
| | | | ----- | ----- | OCB | ----- | 12500 | Asst. Supt. | 84. Starting switch on synchronous condenser exploded while checking operating mechanism. |
| | | | ----- | ----- | OCB | ----- | 9120-16000 | Chief Operator | 85. Synchronous condenser starting switch exploded when put on line. |
| | | | ----- | ----- | OCB | ----- | 9120-16000 | Subd. Operator | 86. Same as 85, double fatality. |
| | | FAULT CURRENT 2 CASES | L-Foot | Chest & Arms | Sw. Handle | Grid & Ground | 6900-12000 | Lineman | 87. Insulator on air break switch failed when injured opened switch. Received ground gradient shock. |
| | | | Hand | Feet | Sw. Handle | Earth | 7600 | Local Manager | 88. Closed in OCB on defective transformer. Electrocuted on live switch handle. |
| | | MISC. EQUIPMENT 2 CASES | General | General | Pot.-Trans. | Enclosure | 6900-12000 | Repairman | 89. Cleaning dead disc. Lost balance and fell on live pot. transformer. |
| | | | R-Hand | R-Foot | Arrester | Steel Beam | 39000-69000 | Apr. Lineman | 90. Walking along steel substation beam. Contacted live arrester. |
| FALLS 7 CASES 5.4% | LINE WORK ON POLES OR TOWERS 7 CASES | FALL FROM POLE OR TOWER 4 CASES | | | Heart Case | | | Lineman | 91. Changed position on pole after completing work. Suffered heart attack and fell 28 feet to ground. |
| | | | | | Cut Out on Pole | | | Lineman | 92. Gaff struck knot while descending pole. Fell 26 feet to ground. |
| | | | | | Cut Out on Pole | | | Serviceman | 93. Gaff cut out while ascending pole. Fell 17 feet to ground. |
| | | | | | Cut Out on Pole | | | Troublemen | 94. Descending pole. Gaff struck crack in pole. Fell 10 feet to ground. |
| | | FALL WITH POLE 3 CASES | | | | | | Lineman | 95. Pulling slack on service cable. Pole broke off at ground. Fell with pole. |
| | | | | | | | | Lineman | 96. Changing X-arms on pole. Pole broke off at ground when primaries were untied. |
| | | | | | | | | Lineman | 97. Forty foot pole being removed, broke off 11 inches below ground when last conductor was cut. |
| MOTOR VEHICLES 17 CASES 13.2% | ON HIGHWAY 15 CASES | | | | Head on Collision | | | Dist. Supt. | 98. Car from opposite direction on 4-lane highway crossed over two inside lanes and crashed into Co. car. |
| | | | | | Head on Collision | | | Line Supt. | 99. Same as 98, double fatality. |
| | | | | | Head on Collision | | | Meter Helper | 100. Injured in service truck met car from opposite direction in middle lane of 3-way highway. |
| | | | | | Head on Collision | | | Div. Manager | 101. Company car veered to left side of highway into on-coming car. Employee possibly suffered blackout. |
| | | | | | Collision at Intersection | | | Fieldman | 102. Company car struck broadside by car which had not stopped at stop sign. |
| | | | | | Collision at Intersection | | | Local Manager | 103. Injured in Company truck entered through street without stopping for stop sign. |
| | | | | | Collision at Intersection | | | Estimator | 104. Company car struck broadside at intersection. |
| | | | | | Car Left Road | | | Group Foreman | 105. Lost control of car and crashed into building. |
| | | | | | Car Left Road | | | Troubleman | 106. Car left road, striking driveway culvert and tree. |
| | | | | | Car Left Road | | | Gen. Foreman | 107. Avoiding dog, foot hit accelerator instead of brake. Struck pole. Died of heart condition 4 days later. |
| | | | | | Car Left Road | | | Sales Manager | 108. Car left road, crashed into tree. |
| | | | | | Struck by Car | | | Mte. Man | 109. Removing equipment from compartment on side of parked truck. Struck by hit and run driver. |
| | | | | | Struck by Car | | | Foreman | 110. Standing at side of pole dolly. Dolly and man struck by car. Visability poor due to fog. |
| | | | | | Parked Ladder Truck Struck by Car | | | Troubleman | 111. Repairing st.lt. from ladder truck. Truck struck in rear by car. Thrown from ladder to pavement. |
| | | | | | Struck by Train | | | Truck Driver | 112. Company truck struck by railroad train at crossing. |
| | RIGHT-O-WAY 2 CASES | | | | Run Over by Company Truck | | | Laborer | 113. Traveling rt/way. Jumped from truck to miss tree limb. Slipped under wheel while getting back on. |
| | | | | | Pinned in Truck | | | Truck Driver | 114. Truck pulling itself up hill with winch line. Hydraulic brake let go. Truck ran down hill, overturned. |
| STRUCK BY 4 CASES 3.1% | LOGGING | | | | Struck by Sapling | | | Choker Setter | 115. Sapling caught in the fight of turn of logs. Sprung back, struck injured. |
| | TREE FELLING | | | | Pinned in Truck by Tree | | | Asst. Supt. | 116. Driving power wagon near trees being felled. Tree fell on top of cab. |
| | LINE WORK | | | | Struck by Boom | | | Labor Foreman | 117. Setting poles. Temp. 5/8 x 12" bolt in telescopic leg snapped out allowing boom to fall. |
| | SURVEY WORK | | | | Struck by Rock Slide | | | Laborer | 118. Clearing right-of-way. Injured struck by rock slide. |
| CAUGHT IN 0.8% | STATION | | | | Conveyor | | | Fuel Handler | 119. Cleaning saw dust from conveyor. Shovel caught, throwing man into belt. |
| DROWNED 0.8% | RIVER AT DAM | | | | River | | | Elec. Mech. | 120. Removing gate slots on dam. Fell through open gate into river. |
| TOXICOSIS 0.8% | STATION | | | | Carbon Tetrachloride | | | Welder | 121. Extinguishing fire in coal hopper with carbon tet. Overcome by fumes. |
| MISC. 4 CASES 3.1% | LINE WORK | | | | Heart Attack | | | Lineman | 122. Repairing storm damage. Descended pole. Suffered heart attack. |
| | STATION | | | | Cause Unknown | | | Substa.Oper. | 123. Victim found lying head down on substation platform steps. Cause of death unknown. |
| | STRUCK BY ENERG. WORK | | | | Not performing ord. duties of occupation | | | Serviceman | 124. Employee also a voluntary fireman. Struck on head by falling ceiling at fire. |
| | | | | | Supplying stranded railway train | | | Clerk Driver | 125. Suffered coronary and pneumonia due to exposure and exhaustion. |
| NO INFORMATION 4 CASES 3.1% | | | | | | | | | 126. Information not made available. |
| | | | | | | | | | 127. Information not made available. |
| | | | | | | | | | 128. Information not made available. |
| | | | | | | | | | 129. Information not made available. |

Compiled for E.E.I. Accident Prevention Committee
By S. H. Young

# Increased Interest in Weather Modification

**T. J. Henderson**
*Chief Hydrographer, California Electric Power Company*

Extract of a paper presented before a meeting of the EEI Hydraulic Power Committee, Portland, Ore.

INTEREST in weather modification continues to increase both in this country and abroad. Realizing the tremendous significance of a possible limited control of the weather, scientific groups and laymen have continued to investigate this field. During the past year there were some seven weather modification projects in operation throughout the state of California alone. Thus, more than passing interest indicates that man is at last putting forth a serious effort to do something about the weather.

On a state level in California there has been passed a bill (Artificial Nucleation, Chapter 1677, Statutes of 1951) which puts a control on cloud seeding operations. Any person or group intending to engage in weather modification in this state must now have a state license and must further submit periodic reports to the Department of Public Works. Oregon, New Mexico, and Arizona, as well as other states, have pending legislation on weather modification, and some of these have already enacted controls on weather modification projects. There has also been interest on a national scale, and several bills on weather modification have been introduced in Congress. In general these have to do with various types of controls and where to put the authority for these controls. So far, however, no legislation has been enacted on a national scale for the control of weather modification activities.

In 1952 the California state legislature made available a sum of $50,000 for the study and evaluation of cloud seeding operations in this state. Under the direction of Robin Reynolds of the Department of Public Works, this study progressed and a final report will be ready for general distribution in the near future. In general this has been a statistical analysis in which a particular seeded area has been compared with some non-seeded or control area. The typing of storms has also been attempted with moderate success. Only those projects under the direction of commercial weather modification organizations were examined, since the state of California did not choose to conduct its own cloud seeding program. Preliminary reports of this statistical investigation seem to indicate a good deal of controversy about methods of approach to cloud seeding evaluation. A request was made to the legislature for additional funds to continue the investigation, but it has been rejected in the present legislative session.

In the last two years government agencies in the United States as well as private concerns have increased their investigations of weather modification possibilities. After the discovery of several nucleating agents in 1946, General Electric Research has continued its study of cloud physics and other meteorological problems. This organization has published what is probably the most complete group of papers now available on weather modification and cloud physics in general. The research reported in these papers was made possible not only through the efforts of the General Electric Co. but also through the joint support extended the research laboratory by the Signal Corps, Navy Department, and Air Force. Last month General Electric published the Final Report, "Project Cirrus, Parts 1 and 2," by Dr. Irving Langmuir and Dr. Vincent J. Schaefer. These final publications summarize all of the work that General Electric Research has done in this field. They are extremely significant and could go down as one of the well-known scientific achievements of this age.

The United States Weather Bureau, originally reluctant to make any positive statements concerning weather modification, has at last undertaken a cloud physics project of its own. This project, located at the Naval Air Station in Seattle, under direction of Dr. Ferguson Hall, is reported to be backed by about $500,000. It is apparently a very comprehensive study involving a quantitative analysis in the hope some concrete value may be placed on the results of cloud seeding.

Dry ice as well as silver iodide will be used in the Weather Bureau experiments, and radar will be used to track the various clouds chosen for the nucleating agents. A network of rain gages will be set up to catch the resultant precipitation. It is hoped that fluorescent dye added to the nucleating agents will assist in the evaluation of the artificially induced precipitation. Other investigations to be made during the Weather Bureau project will include a study of raindrop size using a raindrop spectrograph, persistency of rainfall storms, evaluations using different lengths of historical record, effectiveness of seeding techniques, aircraft meteorological instrumentation, and the investigation of the homogeneity of precipitation areas. Reports resulting from this project should be carefully watched since they will more than likely produce some significant results in weather modification techniques and analysis.

The weather modification program as originally set up by the California Electric Power Co. was curtailed somewhat last season, because of the inadequate storm situations which prevailed over our watersheds for the entire winter period. In addition to this there is a commercial cloud seeding program being carried on to the west of our watershed which is undoubtedly having some effect upon the precipitation falling on our eastern slopes. This cloud seeding project has nullified the nucleation control which we exercised in previous years.

During the present summer season we are engaged in an experimental meterorological balloon–dry ice project on orographic cumulus developments. Preliminary observations indicate that rather significant chain reactions in cloud developments can be obtained with small quantities of dry ice lifted into these clouds with various size weather balloons. Further studies are to be made, centered on precipitation intensity changes, cloud depth-rainfall, amount ratios, and the effect of various quantities of dry ice. Reports covering these studies will be made at some later date this year.

An evaluation of the first three

(*Continued on page* 440)

# Accident Prevention Committee Meeting

**R. P. Douglas, *Chairman***

UNLESS the accident experience of the electric industry during the second half of 1953 reverses the trend of the first six months, it is probable that the industry's safety record for the year will show little improvement over 1952. Based on reports from 46 companies, this prediction was made by R. W. White, Chairman of the Accident Statistics Reporting Subcommittee, at the Accident Prevention Committee meeting in Minneapolis, Minn., on September 21-22, 1953. Although four of the 46 companies reported an accident frequency rate reduction of more than 50 per cent for the first six months of 1953, 17 companies showed increased rates. One of the important activities of the Accident Prevention Committee is the collection and analysis of accident statistics for the electric industry.

In addition to consideration of current accident rates, a report was presented at the meeting by S. H. Young, detailing the causes and circumstances involved in the accidental deaths of 129 electric company employees during 1952. Each year the committee closely reviews the industry's fatalities in an effort to identify contributing factors. The analysis for 1952 again revealed electric shock and burn to be the greatest single cause of death, accounting for 69.7 per cent of the fatalities. Notwithstanding the emphasis placed by the industry in general on the necessity for proper use of rubber protective equipment in line work, 26 linemen were killed on poles by hand contacts. Fourteen others died because arms and shoulders touched energized pole-top conductors. The secondary cause of fatal accidents during 1952 was motor vehicle accidents. Fifteen employees—13.2 per cent of the fatalities for the year—lost their lives in automobile and truck accidents. Falls accounted for seven fatalities, or 5.4 per cent of the total deaths.

Although the apparent or mechanical causes of accidents are identified by analyzing the physical acts and situations resulting in injury or death, the committee is aware that in many cases much more basic reasons may lie behind accidents. To identify these "causes behind the causes," the committee is undertaking an extensive analysis of underlying factors involved in a group of 152 electric shock and burn accidents occuring at various voltages for which supplemental information is available. Progress on this project was reported at the meeting by A. H. Doud, Sponsor of the investigation.

During the past three summers the Accident Prevention Committee has sponsored a summertime hazards program designed to reduce the industry's increased accident rates during the warm weather months. I. R. Dohr, a member of the Seasonal Hazards Subcommittee, reported that during the summer of the current year approximately 26,000 sets of leaflets dealing with particular summer hazards were distributed to linemen. Over 6,000 sets of letters pointing out prevalent warm-weather accident causes were sent to linemen crew leaders, and over 5,500 sets of appropriate safety posters were displayed by electric companies. The committee will continue this activity in the coming year.

Dr. W. B. Kowenhoven, Dean of the School of Engineering, Johns Hopkins University, reported on the progress of the electrical resuscitation project being sponsored by the Accident Prevention Committee. This research program is being undertaken for the purpose of determining methods of arresting ventricular fibrillation which may result from the accidental passage of electric current through the human chest area. Dr. Kowenhoven's studies have indicated that the normal articulated action of the heart can be restored following fibrillation by means of alternating-current electric counter shocks when promptly applied. Because fibrillation can be detected only by an electrocardiograph, it will not be possible ordinarily to determine in the field whether or not a heart is in fibrillation. Thus, any method of counter shock applied must not harm a normal heart. This aspect is also being considered in the test program. The experimentation has been performed on dogs.

C. A. Coutts, Chairman of the Rubber Protective Equipment Subcommittee, reported that the results of questionnaires sent out to electric companies eliciting information on current rubber protective-equipment practices have now been compiled. Companies included in the survey represent 290,000 employees, of which between 50,000 and 60,000 are regularly exposed in the course of their routine activities to the hazards of electric shock and burn. Results of this survey will be very helpful to the committee in its further study of rubber protective-equipment practices. Another activity of this subcommittee is the preparation of preliminary specifications on the properties and methods of testing insulated hard mats. This equipment is receiving increased attention from the industry's safety directors. Mr. Coutts discussed the characteristics of insulated hard mats now on the market and pointed out limitations in their use and testing.

The session of first day was highlighted by a round-table discussion conducted by A. F. Randolph. This interesting feature of each committee meeting allows an exchange of information on specific accident prevention problems by safety directors of electric companies from all parts of the country. Approximately 50 subjects were considered at the Minneapolis meeting.

The committee was welcomed on the morning of the meeting's first day by Earl Ewald, Manager of Electric Operations, Northern States Power Co. Following the Committee luncheon, A. S. King, Executive Vice President of the host company, addressed the group on the theme "Safety Is a Personal Matter."

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# Transmission and Distribution Committee Meeting

**J. W. Anderson, *Chairman***

THE fall meeting of the Transmission and Distribution Committee was held on October 8-9, 1953, at the Hotel Nicollet in Minneapolis, Minn. H. H. Watson, Vice President in Charge of Operation, Northern States Power Co., welcomed the 175 members and guests to Minneapolis and outlined development of the company's high-voltage transmission system.

### General Engineering Group

The General Engineering Group, sponsored by W. M. Penney, featured papers on methods of reducing transmission and distribution costs. F. W. Brooks outlined the value of both historical and inter-company performance comparisons as tools for spotting fertile areas for improvement. Although the development of accurate measures in the transmission and distribution field is relatively difficult, progress is being made. H. E. Cody then described specific measures applied by The Cleveland Electric Illuminating Co. to reduce distribution costs. These include an education and training program; mechanization of construction, maintenance, and clerical operations; work simplification studies encouraging proposals from individual employees; and development of standards of performance.

Discussion of air-conditioner problems, led by B. Brady, indicated growing and more widespread concern over the low power factor of these units which is necessitating wholesale application of capacitors to distribution systems.

A preliminary summary of an extensive survey of television interference trouble, compiled by R. W. Baker, indicated that this is not a major problem to power companies. Only 18 per cent of complaints received are attributable to power systems.

A report from W. C. Phillips outlined activities in the mobile radio field. It appears that the need for additional systems soon will force splitting of channels in existing bands allocated for this service.

W. M. Penney reported that a survey on the use of inhibited oil indicated that most companies would like to have it supplied in all oil-filled distribution equipment but are unwilling to pay an additional three cents per gallon to have it in the larger power transformers.

G. L. Wilkins and R. J. Fowler showed slides and movies of the Flint, Mich., tornado and described restoration activities. H. E. Cody also described effects of a separate tornado which struck Cleveland on the same day.

### Overhead Group

The Overhead Group, sponsored by M. H. Pratt, included description of methods of removing poles by G. A. Ewald and E. T. Coupal.

F. A. Ashbaugh, L. J. Jacobi, and W. J. Witte discussed acceptance inspection practices for new poles and crossarms. Each endorsed acceptance inspection at the vendor's plant where the material can be inspected for defects before treatment, the preservative material checked and the methods of treatment, storage, and handling observed. All advocated use of the utility's inspector where travel distances permit. It was pointed out that the cost of acceptance inspection is repaid if the quality of the material is improved enough to extend its life by only a few months.

D. K. Blake presented a study showing that, even though higher voltage distribution systems may be desirable for economic reasons, 4-kv systems can adequately handle foreseeable residential loads. For example, he showed how 9000-kva substations supplying four #4/0 circuits with 75-kva transformers every 300 feet could handle load densities of 28,000 kva per square mile.

### Standards and Specifications Group

W. L. Vest, Sponsor of the Standards and Specifications Group, called upon subcommittee chairmen to review progress of the group.

W. P. Holben reported a favorable ballot on proposed TD-14, "Specifications for Moulding Staples," which soon will be released for printing. A proposed new specification for expansion shields for galvanized lag screws and machine bolts and proposed revisions of existing specifications for strand eye anchor rods and eyenuts and eyelets are about ready for ballot. Work is continuing on proposed new specifications for insulated clevises and wireholders and on revisions of several of the older existing specifications.

E. T. Coupal reported that a survey of rating requirements for distribution cutouts indicated that although present full-load ratings are adequate there is a definite need for higher interrupting ratings. For example, data on 12,801 feeders showed that theoretical fault current at the bus exceeded the interrupting capacity of 50-amp enclosed cutouts in 89 per cent of the cases and of 200-amp enclosed cutouts in 68 per cent of the cases.

F. A. Ashbaugh reported continued progress on proposed specifications for Douglas fir heavy duty crossarms and braces. Work also is well under way on a proposed specification for locust pins. Study of acceptance and in-service pole inspection also is planned.

R. J. Palmer reported that proposed EEI-NEMA street lighting standards for luminaire supports, film cutouts, and insulator head and reflector interchangeability are nearing completion. Continued progress is being made on those covering nomenclature, insulating transformers and ballasts, and high-voltage controllers and relays. Others on low-voltage controllers and relays and photosentive control devices also are planned.

T. C. Duncan reported good progress on a proposed specification for solder-sweated split, tinned-copper connectors to replace existing specification TD-8. Work is also under way to develop a new specification for compression-type copper connectors.

### Safety Group

The Safety Group, sponsored by G. H. Fiedler, featured addresses by representatives of two companies which have achieved accident rates significantly below the industry average.

A. U. Stearns discussed the safety program of his company which brought a reduction in accident frequency from 44 per 1,000,000 manhours in 1924 to five in 1930 and which has maintained a rate consistently below five ever since. This performance is attributed to a vigorous in-

doctrination in safety consciousness inaugurated by the company president and extending to all employees. He outlined the following points as an approach to better safety:

1. Examine the safety record of your company. If you are not satisfied with it and have ideas on how to improve it, sell these ideas to your top people.
2. Take a sincere interest in the safety program. Give it the same prominence in your planning as is given to all other factors.
3. Insist that your supervisors do likewise.
4. Get all of your employees into the act.
5. Show personal interest in accident investigations, not neglecting the human factor, and also take a personal interest in safety meetings, safety rules, bulletin boards, messages to employees, etc.
6. In designing construction give careful thought to clearances, recognizing the problems of the men who are required to work on the construction, when it is up, during emergencies, as well as under ordinary conditions.
7. Let it be known that you are behind the program and are going to *insist* that your people work safety.

H. J. Crisick re-emphasized many of the above points, particularly noting the importance of setting a good example of safety consciousness and performance. He also stressed that the factors promoting safety are the same as those of high production and economical operation.

D. A. Campbell described an unusual electric shock accident which occurred despite application of the usual precautions of grounding a line for maintenance. Induction from a fault on a parallel line was responsible.

#### Underground Group

The Underground Group, sponsored by D. C. Hawley, covered a variety of subjects. C. V. Strand described development of the Minneapolis low-voltage network system to its present three networks of approximately 20,000 kva each. Each is supplied from a separte source over four or five 13.8-kv feeders.

F. C. Marschner reported that preliminary summaries of data for the 1950-52 "Network Operations Report" show growth of more than one-fourth in both peak load and installed transformer capacity over the three-year period. The 0.52 ratio of peak load to transformer capacity has remained almost unchanged over the past nine years.

H. L. Davis gave more details from the 1951 "Cable Operation Report," which is about ready for publication, and also gave a preliminary summary

(*Continued on page* 440)

## EEI-AGA Electronics Seminar Studies Use of High-Speed Computing Equipment by Utilities

TO consider problems involved in application of high-speed computing equipment to the utility industry, a unique Electronics Seminar, attended by 115 utility executives from companies representing about 40 per cent of the nation's electric and gas meters, was sponsored by Edison Electric Institute and American Gas Association in New York on October 7-9, 1953. The first two days of the seminar were devoted to presentations by representatives of Burroughs Corp.; Radio Corporation of America; Remington Rand, Inc.; National Cash Register Co.; and International Business Machines Corp. On the third day the utility executives met in closed session.

Leading the seminar discussions were W. D. Virtue, Chairman of the EEI Accounting Division Executive Committee, and B. S. Rodey, Jr., Chairman of the AGA Accounting Section. Background work of the two associations in the electronics field was outlined by F. J. Porter, Jr., and John H. W. Roper, Chairmen, respectively, of the EEI and AGA Electronic Accounting Machine Developments Subcommittees.

Participating executives generally agreed that a satisfactory utility electronic accounting system is still around the corner. It was pointed out that, while use of electronics is a practical reality for some large companies, prospects for use by smaller companies will be brighter in a few years when electronic machines may economically handle most of a company's operating records.

A major question before the seminar concerned whether or not utilities would ultimately require custom-built electronic equipment and, if so, what could be done to speed its development. The consensus of utility and manufacturer opinion at the meeting was that electric and gas companies had not sufficiently acquainted manufacturers with the exact type of equipment the utilities needed.

A leading authority, Dr. Howard H. Aiken, Director of the Computation Laboratory, Harvard University, summed up the present situation when he stated, "The manufacturer is not so sure what he ought to do. You, the utility executive, have to figure out what to do with these electronic machines before you get them. You have to start now to educate personnel in your own companies and plan for what is coming. Maybe you should collar some of your engineers and convince them that they should get into the accounting end of your business. Certainly you should send your people to school."

It was pointed out that a number of serious problems remains to be solved, including how to match input and output in printing, random access, sorting, and mark sensing. Differences in various electronic computing systems were also discussed, and questions such as whether to store information through use of magnetic tape, magnetic drums, cathode ray tubes, magnetic cores, or crystals were debated.

Discussion disclosed feeling that introduction of high-speed computing equipment would knit accounting groups more closely together and require direct liaison between them and top management. One executive suggested that the problem of electronics transcends any one phase of accounting. He declared increasing use of electronic machines would bring increased control of costs. Another executive called for industry-wide research on electronics, and still another stated that "This thing is sufficiently out of the stage of pure science and into the realm of possibility to warrant a sizable expenditure of money on it."

A show of hands indicated strong sentiment for future seminar meetings.

# *Personals*

**Walter H. Sammis,** President, Ohio Edison Co., Chairman of the Board of Pennsylvania Power Co., and President of the Institute, will resume presidency of the Pennsylvania company following the retirement of **Louis B. Round.** Mr. Sammis previously served as president of Pennsylvania Power from 1936 to 1950.

Other organizational changes resulting from Pennsylvania Power's recent election of officers include the appointments of **Charles S. Bowden,** General Superintendent of Power Production for Ohio Edison Co., to Executive Vice President of Pennsylvania Power; and **Paul G. Dingledy,** Assistant to the President of Pennsylvania Power, to the post of Vice President of that company.

Mr. Bowden was production manager and assistant to the vice president in charge of operations for Ohio Public Service Co. when it was acquired by Ohio Edison in 1949. At that time he was named general superintendent of transmission and substations, becoming general superintendent of power production in 1950. A 1923 graduate of the University of Colorado, he worked for the City Light and Water Co., in Texas, before joining Ohio Public Service. He is a member of the EEI Prime Movers Committee.

Mr. Dingledy has been associated with Pennsylvania Power and affiliated companies since his graduation from the University of Illinois in 1925. He started with the Pennsylvania-Ohio Power & Light Co., becoming lighting engineer for Penn Power at Greenville in 1926. Two years later he returned to Illinois for graduate work in economics and received a master's degree. He then joined Penn-Ohio Power & Light, becoming assistant to the vice president and general manager of Pennsylvania Power in 1931, assistant to the president in 1950, and a director of the company in 1951. He is past chairman of the PEA Business Development Section and vice chairman of the ECAP Inter-Regional Committee.

Mr. Round, Pennsylvania Power's President since 1950, has been in the power field for nearly 46 years, employed by a Pennsylvania Power predecessor company since 1907. Prior to his election as president, Mr. Round had been vice president and general manager since the company was formed in 1930. He will continue as a member of the board of directors.

Three other assignments in the company include the appointments of **John W. Mikels,** Superintendent of New Castle plant, to replace Mr. Bowden as superintendent of power production; **C. G. McConnell,** Assistant Superintendent of Ohio Edison's Toronto, Ohio, plant, to replace Mr. Mikels; and **Orville E. Flora,** Secretary and Treasurer, to continue in those positions.

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**M. L. Kapp,** Executive Vice President, Interstate Power Co., has been elected President of the company to succeed **B. F. Pickard,** who has been elected Chairman of the Board. Mr. Pickard has been president of the company since 1939.

Mr. Kapp started in the utility business in 1918 with the Chandler (Okla.) Electric Co. as office assistant and meter reader. In 1920 he joined the Oklahoma Natural Gas Co. and advanced to assistant to the vice president in 1934. In 1936 Mr. Kapp left Oklahoma Natural Gas to work for the Michigan Public Service Co. at Traverse City, Mich., as operating superintendent and member of the board of directors. He was made vice president of the company in 1938, his position when he left to join Interstate Power in 1939 as assistant to the president. He was elected director of Interstate in 1940, vice president in 1945, and executive vice president in 1949. He served as president of the Iowa Utilities Association in 1950.

Mr. Pickard has been with Interstate since 1939 when he relinquished the presidency of Central States Power & Light Corp., in St. Louis, Mo. He started in the electric industry in 1909 with North Carolina Public Service Co., becoming general sales and new business manager in 1915. In 1925 he went to Philadelphia to help in organizing and managing Southern Gas & Power Corp. and later Southern Cities Co., of which he was operating vice president. He spent several months in utility management and reorganization work in the West Indies and Europe. In 1934 he became associated with Central States Power & Light as general manager, later becoming president. Mr. Pickard was president of both the Iowa Utilities Association and North Central Electric Association. He will remain on active, full-time duty with Interstate in his position as chairman of the board and will continue to act as senior officer of the company.

**L. L. Peterson,** for the past two years Executive Assistant at Interstate Power Co., has been elected a Vice President of the company by the Board of Directors.

Mr. Peterson is a graduate electrical engineer of the University of Minnesota. Prior to joining Interstate in 1928, he worked with Northern States Power Co. He spent several years at Albert Lea, Minn., and then transferred to Clinton as district manager in 1937.

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**A. B. Brown,** Executive Vice President, General Manager, and a Director of Southern Indiana Gas and Electric Co., has been elected President of the company, upon retirement of **F. Bayard Culley.** Mr. Culley will continue to serve the company as a Director.

A 1923 electrical engineering graduate of Montana State College, Mr. Brown worked as test engineer for Ohio Edison Co. before joining Southern Indiana Gas and Electric as test engineer in 1926. His later positions with the company included those of chief engineer of the Ohio River station and general superintendent of electric, gas, heating, and water operations. In 1949 he became executive vice president and operating manager, moving to the post of executive vice president in 1952.

Mr. Brown is a director of Ohio Valley Electric Corp. and its subsidiary, Indiana-Kentucky Electric Corp. Both companies are associated in the power supply for the Atomic Energy Commission development in Ohio. He is also president and director of the Indiana Electric Association, a director of the Indiana Gas Association, and a member of the Indiana Society of Professional Engineers. He received the 1952 En-

gineer of the Year award in Indiana.

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**E. F. Kelly,** Chairman of the Board of Directors, Central Illinois Public Service Co., has resigned and has requested retirement after 40 years of company service, the greater portion of which he has been concerned with the conduct and management of the company.

Elected to the position of Vice President with supervision of operations was **J. R. Broderick,** formerly manager of CIPSCO's Southern Division. Elected as Vice President with supervision of commercial, customer, and employee relations was former Assistant to the Vice President **J. C. Happenny.** Also, **Roy B. Tulpin,** Vice President and Controller, was designated Vice President in Charge of Finances.

Mr. Kelly, a Bachelor of Science graduate of the Massachusetts Institute of Technology, joined CIPSCO in 1913. He served in World War I and afterward, upon his return to the company, proceeded to rise through the ranks, becoming vice president and director in 1932 and chairman of the board in 1949.

Mr. Broderick, a 1926 graduate of the University of Illinois with a B.S. degree in electrical engineering, joined the company a few months after his graduation. He transferred in 1930 to the Southern Division as a storekeeper. In 1933 he became superintendent at Jerseyville, then moved to the post of superintendent at Macomb in 1940, and finally was named Southern Division manager in 1943.

Mr. Happenny, a business administration graduate of the University of Illinois, first worked for four years with the United States Gypsum Co. He entered the electric field in 1929 with the Central and South West Utilities Co. serving as assistant to the treasurer and later as secretary and assistant treasurer. He joined CIPSCO in 1933 as treasurer. In 1939 he resigned to assume the presidency of the Oklahoma Power and Water Co. Nine years later he returned to CIPSCO as assistant to the vice president in charge of operations.

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**Carl J. Forsberg,** Vice President in Charge of Field Operations, Wisconsin Power and Light Co., has been elected Vice President in Charge of Operations. In his new position, Mr. Forsberg will have direction of the company's 14 operating districts, all major generating plants, the operations and maintenance department, the sales department, and all automotive equipment.

A United States Naval Academy graduate, he joined the Public Service Co. of Northern Illinois in 1928 after resigning his naval commission. In 1934 he joined the Wisconsin Power and Light Co., becoming district manager by 1941. He served with the Navy in World War II, and returned to Wisconsin Power and Light in 1945. He was made Assistant to the Vice President in 1947, then was elected to his last post in 1948. He was elected to the board of directors in 1951.

Other changes at Wisconsin Power and Light Co. include the election of **J. D. Howard,** Acting District Manager, to the position of Assistant to the Vice President in Charge of Operations, and the promotion of **M. R. Norton,** Acting General Sales Manager, to General Sales Manager of the company.

A professional engineer in the company's employ since 1934, Mr. Howard graduated from Iowa State College in 1925 and took a three-year training course with the Westinghouse Electric Corp., being assigned successively to work at Philadelphia, Pittsburgh, and Sharon, Pa., departmental headquarters. He was given a leave of absence from Wisconsin Power and Light in 1941, when he was serving as industrial power engineer, to become a district manager for the War Production Board. In 1943 he returned to Wisconsin as general sales manager, being named acting district manager last April.

Mr. Norton has been with the company since 1932, having served as chief salesman, sales supervisor, dealer sales promotion manager, and acting general sales manager. A Beloit College graduate, he taught high school biology in Illinois and served five years with a barn equipment company as district sales manager, and two years as appliance salesman for the Central Illinois Electric and Gas Co. before coming to Wisconsin. Mr. Norton is secretary of the Central Wisconsin Adequate Wiring Bureau and was chairman of the EEI Dealer Coordination Committee for two years.

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**J. F. Pennington,** Operating Manager, and **C. M. Wallace, Jr.,** Sales Manager, both of Georgia Power Co., have been elected Vice President in Charge of Operations and Vice President in Charge of Sales, respectively.

Mr. Pennington, who joined the company in 1918, served successively as construction helper, electrician, foreman, assistant superintendent, and general superintendent of transmission and distribution. He had been named operating manager in 1950.

Mr. Wallace, successor to retired **Charles A. Collier,** started with Georgia Power as a student engineer in 1928. He served as power salesman, lighting engineer, and division sales manager in Atlanta, Ga., before becoming sales manager and assistant to Mr. Collier in 1951.

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**Thomas G. Ayers,** Assistant Vice President of Commonwealth Edison Co. since 1952, has been elected Vice President in charge of industrial relations of the company. He succeeds **Robert F. Creutz** who resigned because of ill health. Mr. Ayers has been with the Edison system for 16 years, having joined Public Service Co. of Illinois following his graduation from the University of Michigan in 1937.

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**Clayton L. Nairne,** General Superintendent of Operations, and **Lionel J. Cucullu,** Chief Engineer, have both been elected Vice Presidents of New Orleans Public Service Inc.

Mr. Nairne, a graduate of Tulane University's College of Engineering, was first employed by New Orleans Public Service during 1924 and 1925. He then moved to Florida Power & Light Co. as an engineer, rejoining New Orleans Public Service in 1928. He rose through the ranks to become assistant to the vice president in charge of operations in 1943 and attained his last position in 1951. He is a member of the Louisiana Engineering Society and the Southern Gas Association, president of the New Orleans Community Chest, and past president of the Tulane Alumni Association.

Mr. Cucullu graduated from Louisiana State University in 1927 as an

engineer. After serving for three years with other organizations, he joined the New Orleans company in 1930 and held a variety of positions leading to his appointment as chief engineer in 1951. He is a member of the Louisiana Engineering Society, of which he was president, the American Society of Mechanical Engineers, and the American Institute of Electrical Engineers.

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**H. W. Tice,** Vice President, Southern California Edison Co., has been named Vice President and General Manager of the company following recent organizational changes.

Other executives whose duties have been redefined are **James F. Davenport,** Vice President, to be Vice President and Assistant General Manager, and **R. G. Kenyon,** Vice President, who will assume the duties of the late Vice President **Lane D. Webber.**

Mr. Tice, vice president since 1945, is a veteran of 31 years of company service. In his new capacity, he will be senior administrative officer in charge of field departments and related activities. Mr. Davenport will continue as budget director but has been relieved of all other current assignments. Relinquishing his position as head of the Industrial Relations Department, Mr. Kenyon will assume new duties which involve working and maintaining contact with outside civic and business organizations.

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**George E. Kidd,** Manager of Virginia Electric and Power Co.'s Richmond District, has been elected Vice President in charge of personnel, succeeding **T. Norman Jones, Jr.,** who has retired after more than 47 years with the company.

Mr. Kidd received his B.S. degree in electrical engineering from North Carolina State College in 1913 and first worked for General Electric Co. Two years later he joined a predecessor company of Vepco as electrician, rising to assistant superintendent of power in 1918, and division manager at Newport News in 1930. From 1940 to 1946 he was successively district manager of the company at Charlottesville, Newport News, Alexandria, and Richmond. Active in civic and professional groups, Mr. Kidd is a past president of the Electrical League of Richmond.

**A. H. McDowell, Jr.,** Assistant Manager of the Richmond District since 1952, succeeds Mr. Kidd as Manager of the district. He has been with Vepco since his graduation with a B.S. degree from Virginia Military Institute in 1928. Since joining the company, he has served as estimator for lines in the Engineering Department, distribution superintendent in Williamsburg, assistant to the general manager of the Electric Department, and executive assistant.

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**Walter C. Schoeppe,** Comptroller, and **Hugh McKean,** General Superintendent of Operating Departments, Florida Power Corp., have been made vice presidents of the company. Mr. Schoeppe has been in the electric power field for 33 years, 26 of them having been spent with Florida Power. He has been a director of the company since 1938. Mr. McKean worked for 18 years in Indiana power companies before joining Florida Power in 1946.

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**L. Earle Merrow,** Executive Assistant of Rockland Light and Power Co., has been elected Vice President. He has been with the company since 1931 having joined it as superintendent of electrical production. A graduate of the University of Maine with a B.S. degree in electrical engineering, he attended the General Electric Test Course. He was associated with the Cumberland County Power and Light Co. from 1921 to 1923 and was assistant to the manager of the Montpelier and Barre Light and Power Co. from 1923 to 1930. He next served as an engineer with New England Public Service Co. for a year before starting his service with Rockland Light. He was appointed executive assistant in 1935. Mr. Merrow, a licensed professional engineer in New York State, is a member of AIEE.

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**Hubbell Carpenter,** Assistant Chief Engineer, Minnesota Power & Light Co., has been promoted to Chief Engineer of the company, succeeding **Franklin S. Rice,** who has retired.

Mr. Carpenter, who completed his engineering education at the University of Idaho in 1932, worked with the Idaho Power Co. as an electrician's helper and was later engaged in engineering projects in Colorado, California, Oklahoma, and Texas. He joined Superior Water Light & Power Co., which is controlled by Minnesota Power & Light, in 1941, serving as resident engineer. An expert on concrete and concrete structures, he has, since 1942, had charge of the construction of generating units at two of the company's plants in Duluth and of a power plant being built in Aurora, Minn.

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**J. E. Fife,** Manager of Power Supply, West Penn Power Co., has been appointed to the new post of Chief Engineer. Named to fill four newly created Assistant Vice President positions were **W. V. Drake,** Manager of Power Production; **R. W. Hurd,** Assistant to the President; **R. G. MacDonald;** Assistant to the Vice President; and **J. V. Soisson,** Central Division Manager at Charleroi.

In his new position, Mr. Fife, who served as division manager at both Ridgeway and Kittanning before joining the company's headquarters staff in March, 1949, will be responsible for system planning, electrical engineering, communications, and civil engineering.

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**W. S. Brokenshire, Jr.,** Assistant Superintendent of Construction, Pennsylvania Power & Light Co., has been named to succeed retired **E. E. Chubbuck** as Superintendent of Construction.

Mr. Brokenshire, a 1924 graduate of Pennsylvania State College with a B. S. degree in electrical engineering, joined PP&L as an engineer in the Engineering Department's distribution section. In 1926 he became engineer in the transmission section, being promoted in 1933 to senior engineer in the distribution section. During World War II he was a special coordinator dealing with the WPB. In 1945 he was made assistant production engineer, being named to his former post earlier this year. He is a member of the Pennsylvania Society of Professional Engineers, American Institute of Electrical Engineers, and Engineers Club of the Lehigh Valley. He is also a director of the Standard Medical Co. of Lansford.

Mr. Chubbuck graduated from Pennsylvania State College in 1911 with a B.S. degree in civil engineering. After his graduation he worked with a number of organizations, in-

cluding the City of Altoona, Pa., Alabama Power Co., Interstate Commerce Commission, and Phoenix Utility Co., before becoming associated with PP&L in 1933 as transmission engineer in charge of lines construction. In 1934 he became superintendent of construction. He is a member of the American Institute of Electrical Engineers, Engineers Club of the Lehigh Valley, and Livingston Club.

In another PP&L appointment, **Harry M. Schelden,** Manager of the company's field practices section, has been promoted to Manager of the Lehigh Division. He has been with Pennsylvania Power since 1921.

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**William H. Kopenhaver,** Assistant Superintendent of Pennsylvania Power & Light Co.'s Sunbury Steam Electric Station, has been appointed Superintendent of the company's new Martins Creek power plant. Mr. Kopenhaver, with the company since 1942, succeeds **Richard Forbes** who has been transferred to the office of Superintendent of Generation, Hazleton.

Completion of the first unit of the Martins Creek plant is scheduled for 1954.

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**Richard H. Syring,** Chief of the Pacific Northwest Bureau for the *Wall Street Journal,* has been named Assistant to the Secretary, Pacific Power & Light Co. In his new position, Mr. Syring will prepare reports and data for specialized needs of financial institutions and stockholders.

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**Walter G. McKie,** General Sales Manager, Rochester Gas and Electric Corp., has been elected President of the Rochester Sales Executive Club, of which he has been a very active member for the past ten years. He joined RG&E in 1922.

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**William H. Harrison,** Assistant to the Comptroller, Potomac Electric Power Co., has resigned to become Controller of the Texas Electric Service Co. He had joined Potomac Electric in 1937 as a junior clerk in the Accounting Department. A member of the District of Columbia Bar, he received his law degrees from Southeastern University, is a CPA and a member of the American Institute of Accountants

## Transmission and Distribution Committee

(*Continued from page* 436)

of data for 1952, which indicates a cable trouble rate of 7.5 per 100 cable miles as compared with 8.0 in 1951.

J. A. Pulsford announced that work on a revision of the NELA *Underground Systems Reference Book* now is underway with publication scheduled about two years hence.

G. T. Hays described application of secondary capacitors on underground networks in Dallas. The program was initiated in 1947 following a study showing that the then existing network peak load power factor of 83 per cent could be economically raised to 94 per cent by this means. Installations now total about 21,000 kvar, 60 per cent of which can be switched.

W. J. Witte and J. A. Pulsford discussed problems involved in selection of sectionalizing and protective devices for underground radial distribution circuits and in the maintenance and operation of such circuits. Further investigation of this subject is planned. W. O. Smith described a 66-kv pipe-type cable failure due to moisture from an undetermined source.

The balance of the meeting was devoted to discussion of members' individual problems.

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**William T. Hamilton,** Manager of the Customers Accounting Department, The Cleveland Electric Illuminating Co., has been elected International President of the Institute of Internal Auditors. The action took place at the Institute's annual meeting in Toronto, Ont. A native Scotsman, he graduated from Western Reserve University and served CEICO since 1942 as auditor and administrative assistant to the controller before appointment to his present post. He previously served the Institute of Internal Auditors as president of its Cleveland Chapter and as vice president of the international organization.

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**Paul J. Scheerer,** Electrical Engineer, Monongahela Power Co., has been named to fill the newly created position of Superintendent of Division Engineering. In his new position he will act as coordinator of work done by each of the company's seven engineering divisions.

Mr. Scheerer, a graduate of Purdue University with an electrical engineering degree, has been with Monongahela Power since 1929 when he became an estimator in the Operations Department. Later in 1929 he became a junior engineer, becoming senior engineer in 1937. He was named to his former post in 1945.

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**Ricklef A. Reid,** Assistant Superintendent of Generation, The Montana Power Co., since 1950, has assumed the duties of Superintendent of Generation, a position formerly held by **Everett A. Hamilton,** who has retired.

Mr. Reid, a graduate of Lehigh University, joined Montana Power in 1920.

## Weather Modification

(*Continued from page* 433)

years of our weather modification program has been made by the statistical branch of the United States Weather Bureau. This evaluation concerned itself with a stream flow runoff comparison between a seeded target area and a predetermined control area to the north of our target watershed in the Bishop Cups Area. Results of this statistical analysis have been presented before meetings of both the American Geophysical Union and the American Meteorological Society as "Cloud Seeding in the Sierra near Bishop, California," by Ferguson Hall, T. J. Henderson, and Stuard Cundiff. In general this evaluation indicates that during 1948, 1949, and 1950 the average annual stream flow runoff from the seeded watershed was augmented by 9 per cent, with the 90 per cent confidence limits being zero and 18 per cent.

Since we are a power producer dependent in part upon annual stream flow runoff, our interest in weather modification remains extremely acute. At present we intend to continue an active program of cloud seeding and pursue an evaluation along both the statistical and observational lines. It is our belief that the problems involved in artifical nucleation are largely chemical and physical in nature and should eventually yield to a concentrated investigation.

# EDISON ELECTRIC INSTITUTE OFFICERS AND COMMITTEES

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*(Terms Expiring 1955)*

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*(Terms Expiring 1956)*

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# EDISON ELECTRIC INSTITUTE OFFICERS AND COMMITTEES

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